Brady Wind Energy Center — Stark County, North Dakota

Wetlands and other Waters of the United States Delineation Report

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Contents

Page

Tables

Appendices

1. Introduction

This report describes the results of a wetland and other waters of the United States (WoUS) delineation performed in support of the Brady Wind Energy Center (Project). Field surveys were completed October through November 2015. The Project includes the construction of wind turbines and an associated transmission line in Stark County, North Dakota.

The content of this report presents the methodology, results, and conclusions of wetland and other WoUS delineation and stream identification activities completed on November 24, 2015. There is an additional 80 acres of areas that remain to be surveyed due to alignment changes in facility design since the survey was completed. These layout changes are primarily due to avoid impacts to wetland and archeological features. These areas will be surveyed when weather permits. Because Brady Wind, LLC (Brady Wind) has committed to avoiding and minimizing impacts to potentially jurisdictional features, if any additional features are delineated in the previously unsurveyed areas, the Project design will be revised to avoid and minimize impacts to these features with the goal of not exceeding the 0.10-acre threshold of permanent wetland impacts which would trigger the need for a PCN.

1.1 Project Description and Location

Brady Wind, a wholly-owned, indirect subsidiary of NextEra Energy Resources, LLC (NEER), is proposing to construct the Project in southern Stark County, North Dakota (**Figure 1**). The Project area is the location within which Brady Wind has negotiated easements with landowners, and encompasses approximately 30,213 acres (47 square miles).

The Project will have a nameplate capacity of approximately 150 megawatts (MW), consisting of up to 87 wind turbines using both General Electric (GE) 1.715 MW Xle and GE 1.79 MW Xle wind turbine generators. Additional facilities include access roads, underground electrical collection systems and cabling, a collection substation, an operation and maintenance (O&M) building, meteorological towers, a construction laydown area, and a temporary turbine storage area (**Figure 2**). The Project also includes an approximately 19-mile, 230-kilovolt (kV) overhead transmission line and a switchyard to connect the Project to the Belfield to Rhame 230-kV transmission line, in Section 29 of Township 137 North, Range 98 West, approximately 19 miles southwest of the city of Dickinson and will transmit power into the Basin Electric Power Cooperative (Basin) transmission system. The switchyard will include a microwave tower, a control building, and four new transmission poles to interconnect to Basin's existing Belfield to Rhame Transmission Line. Temporary crane paths will be used to transport construction cranes in the Project area to erect turbines during construction.

1.2 Ecoregional Setting

The Project is located entirely in the Northwestern Great Plains Missouri Plateau level III ecoregion of North Dakota (Chapman 2001). Characteristic physiography in this region includes rolling plains with isolated sandstone buttes. Vegetation communities in this region are mainly composed of short prairie grasses with very few trees. The predominant land use in the Project consists of agricultural fields and pastureland, along with riparian areas dominated by cottonwood woodland. Tributary streams in the Project area drain north to the Heart River.

1.3 Regulatory Setting

1.3.1 Federal Regulations

All discharges of dredged or fill material into jurisdictional waters of the U.S., that result in permanent or temporary losses of WoUS, are regulated by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA). The USACE regulates projects in navigable waters under Section 10 of the Rivers and Harbors Act.

Under USACE and U.S. Environmental Protection Agency (EPA) regulations, wetlands are defined as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." In non-tidal waters, the lateral extent of USACE jurisdiction is determined by the ordinary high water mark, which is defined as the "line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" (33 CFR 328[e]).

Depending upon the level of impacts to the jurisdictional features, a preconstruction notification (PCN) and an approved jurisdictional determination (JD) by the USACE may be necessary for the Project. For permanent impacts less than 0.1 acre, no PCN would be required. If impacts to jurisdictional waters cannot be avoided, the Project will require permitting under the CWA § 404 program administered by USACE. The North Dakota USACE office recommends consultation on wind farm projects that may exceed these thresholds to determine the need and/or type of permitting. Brady Wind has committed to avoiding and minimizing impacts to potentially jurisdictional features with the goal of not exceeding the 0.10-acre threshold of permanent wetland impacts which would trigger the need for a PCN.

1.3.2 New CWA Rule

The State of North Dakota is currently involved in litigation concerning the new CWA rule that went into effect August 28, 2015. In lieu of the decision on the new rule, as it may be resolved in

the state of North Dakota, the USACE will default to the preexisting definition for "waters of the United States" under Section 404 of the CWA (33 CFR 328.3(a), as follows:

1. *All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;*

2. *All interstate waters including interstate wetlands;*

3. *All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:*

    i. *Which are or could be used by interstate or foreign travelers for recreational or other purposes; or*

    ii. *From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or*

    iii. *Which are used or could be used for industrial purpose by industries in interstate commerce;*

4. *All impoundments of waters otherwise defined as waters of the United States under the definition;*

5. *Tributaries of waters identified in paragraphs (a)(1)-(4) of this section;*

6. *The territorial seas;*

7. *Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a)(1)(6) of this section.*

8. *Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with the EPA. Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 123.11(m) which also meet the criteria of this definition) are not waters of the United States.*

A comparison of the Clean Water Act's old rule, proposed new rule, and final new rule is provided in Table 1.

With respect to the CWA and the types of jurisdictional wetlands and other WoUS defined in the existing old rule, proposed new rule, and final new rule (Table 1), Brady Wind has taken a conservative approach and will avoid to the greatest extent practicable permanently impacting potentially jurisdictional wetlands and other WoUS.

Table 1. Comparison of Old, Proposed New, and Final New CWA Rule

Subject	Old Rule	Proposed Rule	New Rule (Under Injunction)
Navigable Waters	Jurisdictional	Jurisdictional	Jurisdictional
Interstate Waters	Jurisdictional	Jurisdictional	Jurisdictional
Territorial Seas	Jurisdictional	Jurisdictional	Jurisdictional
Impoundments	Jurisdictional	Jurisdictional	Jurisdictional
Tributaries to Traditional Navigable Waters	Did not define tributary	Defined tributary for the first time as water features with bed, banks and ordinary high water mark, and flow downstream.	Same as proposal except wetlands and open waters without beds, banks and high water marks will be evaluated for adjacency.
Adjacent Wetlands/Water	Included wetlands adjacent to traditional navigable waters, interstate waters, the territorial seas, impoundments, or tributaries.	Included all waters adjacent to jurisdictional waters, including waters in riparian area or floodplain, or with surface or shallow subsurface connection to jurisdictional waters	Includes waters adjacent to jurisdictional waters within a minimum of 100 feet and within the 100-year floodplain to a maximum of 1,500-feet of the ordinary high water mark.
Isolated or "Other" Waters	Included all other waters the use, degradation or destruction of which could affect interstate or foreign commerce.	Included "other waters" where there was a significant nexus to traditionally navigable water, interstate water or territorial sea.	Includes specific waters that are similarly situated: Prairie potholes, Carolina and Delmarva bays, pocosins, western vernal pools in California, and Texas coastal prairie wetlands when they have a significant nexus. Includes waters with a significant nexus within the 100-year floodplain of a traditional navigable water, interstate water, or the territorial seas, as well as waters with a significant nexus within 4,000 feet of jurisdictional waters.
Exclusions to the definition of "Waters of the US"	Excluded waste treatment systems and prior converted cropland.	Categorically excluded those in old rule and added two types of ditches, groundwater, gullies, rills and non-wetland swales.	Includes proposed rule exclusions, expands exclusion for ditches, and also excludes constructed components for Municipal Separate Storm Water Sewer System (MS4s) and water delivery/reuse and erosional features.

Source: EPA (2015) Factsheet-Clean Water Rule.

1.3.3 State Regulations

The North Dakota State Water Commission – Office of the State Engineer (Commission) is the regulatory body that permits actions in wetlands in the state of North Dakota. The Commission issues three types of permits: a Drain Permit, a Wetland Restoration Permit, and a Wetland Creation Permit. The State does not have a permit requirement for fill placed in a wetland.

The Drain Permit is issued for projects that drain ponds, sloughs, lakes, wetlands, or any similar series which has a watershed greater than 80 acres. The Wetland Restoration Permit is required for projects that restore wetlands less than the size of the original wetland. A Wetland Creation Permit is required for projects creating wetlands capable of storing more than 25 acre-feet.

The Project does not meet the criteria for any of the three permits. Therefore, no State permit for wetlands is required for this Project.

1.3.4 Stark County Regulations

Stark County requires a floodplain permit for development in the floodplain.

2. Wetland Determination/Delineation Methods

The following sections briefly describe the methods used for this series of wetland determinations.

2.1 Desktop Methodology

Tetra Tech conducted a desktop analysis of the Project area to identify potential jurisdictional WoUS. Desktop analysis used the following sources of information, as described in this section.

The U.S. Fish and Wildlife Service (USFWS) online Wetlands Mapper tool (USFWS 2015) depicts mapped wetlands as part of the National Wetland Inventory (NWI) Program. The NWI dataset identified 15 wetlands in the Project area. NWI wetland polygons situated in the Project area are depicted in **Figure 3: Sheet Maps 1–18** of **Appendix 1**.

The U.S. Geological Survey (USGS) produces the National Hydrography Dataset (NHD) that identifies perennial and intermittent streams, ponds, and lakes. The online database NHD Viewer tool (USGS 2015a) was queried for the Project area. The query found 43 NHD features that intersect proposed Project infrastructure. Ten features were identified as waterbodies (ponds, lakes, and impoundments), 27 intermittent streams, and six artificial paths (man-made water ways) in the Project area. No perennial stream features were identified in the Project area. The USGS also is responsible for topographic mapping (USGS 2015b). The field team used topographic maps during the field work to enhance the ability to identify and delineate probable

surface water sites including streams, ponds, and reservoirs located near planned Project infrastructure.

The U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) is the source for hydric soils information. These data are available online via the Web Soil Survey tool (USDA-NRCS 2015). Data were obtained for the Project area and were used to cross-check against field sites that were initially observed to exhibit wetland or surface water conditions. Hydric soils were identified in the Project area associated with NWI and NHD mapped features. Additionally, the Web Soil Survey was queried for drainage class across the Project area. No soils with a classification of poorly drained were documented for the Project area.

The USDA-Farm Service Bureau (2015) produces current high-quality aerial photography through the National Agricultural Imagery Program (NAIP). This aerial photography was used to further refine the field delineation for wetlands and other surface waterbodies within the Project area.

2.2 Desktop Results

The Desktop Analysis identified locations where proposed Project features (turbines, collection lines, access roads, or transmission line poles) intersected possible wetlands or other WoUS features. Remote sensing data are not precise, however, and Tetra Tech wetland scientists determined that a field reconnaissance was required to determine the precise locations and boundaries of wetlands and other WoUS located in the Project area.

2.3 Floodplains

A desktop analysis of mapped floodplains was conducted for the Project area. Approximately three percent of the Project Area is within 100-year floodplains (Figure 3). These areas occur along the small streams and drainages that are tributaries to Antelope Creek, the Cannonball River and Thirtymile Creek. The 100-year floodplain is defined as the area that will be inundated by a flood event having a one percent chance of occurring in any given year.

Based on the current Project layout, one access road, four transmission line poles, a temporary laydown area, and underground collection lines cross floodplains. Coordination is underway with the Stark County Floodplain Administrator to secure a Floodplain Development Permit.

2.4 Turbine Micrositing

Tetra Tech wetland scientists participated in a site visit with a Project team consisting of engineers, land surveyors, and cultural resource specialists to determine the optimal locations for wind turbines within the Project area. The objective of the micrositing is to identify areas that may have adverse impacts to sensitive environmental areas including wetlands and other WoUS. Where possible, wind turbines were re-located or eliminated during the micrositing process to avoid impacts to wetlands or other WoUS.

2.5 Wetland Delineations

The field delineations for this study were preformed October 22 through 26, and November 17 through 23, 2015. A discussion of wetland delineation methodology follows in the next subsection. The delineations were conducted in areas where proposed Project infrastructure intersected areas identified during the desktop analysis. In order to provide flexibility for potential Project design changes, The survey corridor included a 350-foot radius around proposed turbine locations, a 250-ft corridor around proposed access roads, a 150-foot corridor around proposed collection lines, an 80-foot wide corridor around proposed crane paths, and a 350-foot corridor along the proposed transmission line route. **Table 2** below provides the estimated temporary and permanent disturbance areas by infrastructure type provided by Brady Wind.

Table 2. Project Impact Assumptions

Project Component	Temporary Construction Disturbance	Permanent Disturbance (Operation)
Wind Turbines [a]	4.5 acres per turbine	0.2 acres per turbine
Access Roads [b]	50 feet wide per linear foot of road	16 feet wide per linear foot of road
Collection Lines [c]	50 feet wide per linear foot	12 feet x 8 feet for each junction box
O&M Facility	5 acres	5 acres
Collection Substation	8 acres	8 acres
Construction Laydown Area [d]	22 acres	0 acres
Meteorological Towers [e]	1.25 acres per tower	5 sq. feet per tower
Turbine Storage Area [f]	40 acres	0 acres
Temporary Crane Paths	80 feet wide per linear foot	0 acres
Transmission Line	1.4 acres per pole	38.5 sq. feet per pole
Switchyard	0 acres	2.7 acres

a Construction impacts assumed a 250-foot construction radius around the turbine, which equates to approximately 4.5 acres per turbine. Impacts during operation account for a 40-foot x 100-foot gravel pad with a 15-foot buffer, or 0.2 acres per turbine.

b Easement width necessary for construction based on turbine types. Temporary and permanent impacts represent a conservative estimate of disturbance. Roads required to support crane access to turbines during operation would remain up to 38 feet wide; other access roads may be built at 16 feet or reduced later to 16 feet. Access road impacts also assume all proposed roads are new access roads and do not consider improvements to existing roads separately.

c Where collection lines run parallel to access roads, the respective impact buffers generally do not overlap.

d Assumes one 22-acre laydown area.

e Area of impact is 1.25 acres per guyed tower during installation. Once installed, each tower has a 1 square-foot base plate and four 1 square-foot anchor points, or 5 square feet per tower.

f Assumes one 40-acre turbine storage area.

2.5.1 Wetland Delineation Methodology

Wetland delineation for the Project followed methodology contained in the USACE *Wetland Delineation Manual* (USACE 1987) and the *Regional Supplement to the USACE Wetland Delineation Manual: Great Plains Region (Version 2.0)* (USACE 2010). The delineation process was utilized to document dominant vegetation, soils, and hydrology in areas of interest (i.e., areas with potential intersections between planned Project infrastructure and potential wetland ecosystems). For a site to be considered a wetland, there must be positive indication of dominance by hydrophytic vegetation, hydric soils, and characteristic wetland hydrology. In normal conditions, if a sample plot lacks any of these three criteria, it is considered upland. To determine these three variables, the field team typically designated paired sample plots, placed at discrete (typically less than 25 feet) distances from one another—one to represent wetland conditions, the other to represent uplands. Each sample plot featured a hand-dug soil pit averaging 20 inches in depth. The sample plot included nested concentric sampling rings for vegetation cover and species identification, as follows:

- Herbaceous vegetation was identified within a 5-foot radius of the sample plot center
- Sapling/shrub vegetation was identified within a 15-foot radius of the sample plot center
- Trees and woody vines were documented within a 30-foot radius of the sample plot center

In cases where wetlands were assessed outside of the growing season or when a wetland boundary was difficult to assess, Tetra Tech conservatively mapped the wetland boundaries to ensure no potential wetland areas were missed.

2.5.1.1 Hydrophytic Vegetation

The dominant vegetation at each sample plot was keyed to species level and each species was assigned a wetland indicator status using *The National Wetland Plant List* (Lichvar 2014). The field team used the *Flora of the Great Plains* (McGregor 1986) as the field taxonomic reference for keying unknown plant species.

Hydrophytic vegetation, or plants that are indicators of wetlands, include those species designated obligate (OBL), facultative wetland (FACW), or facultative (FAC). As a general rule, hydrophytes dominate a sample plot when greater than 50 percent of the evaluated species are OBL, FACW, or FAC. Upland plants include those listed with facultative upland (FACU), or upland (UPL) status. **Table 3** provides descriptions of these indicators.

Table 3. Wetland Indicator Status

Indicator Status	Occurrence in Wetlands

Obligate (OBL)	Almost always occur in wetlands under natural conditions (estimated probability >99%).
Facultative Wetland (FACW)	Usually occur in wetlands (estimated probability 67%-99%), but occasionally found in non-wetlands (estimated probability 1%-33%).
Facultative (FAC)	Equally likely to occur in wetlands or non-wetlands (estimated probability 34%-66%).
Facultative Upland (FACU)	Usually occur in non-wetlands (estimated probability 67%-99%), but occasionally found in wetlands (estimated probability 1%-33%).
Upland (UPL)	Almost always occur in non-wetlands under natural conditions (estimated probability >99%).
Not Listed (NL)	Not Listed plants are assumed to be UPL as defined in the user notes for the WMC 2014 Regional Plant List.

2.5.1.2 Cowardin Classification

Wetlands were classified according to *Classification of Wetlands and Deepwater Habitats in the United States* (Cowardin et al. 1979) during the field survey. The classification system, also known as the Cowardin Classification, was developed as a tool to aid in distinguishing the different types of wetlands. Wetlands found in the Project area were all identified as palustrine (non-tidal) emergent wetlands (PEM). Emergent wetlands consist of erect and rooted wetland plants.

2.5.1.3 Wetland Soils

Soil from each soil pit was evaluated for hue, value, and chroma in each observable horizon using Munsell *Soil Color Charts* (Gretag 2009). Each soil horizon was also checked for texture and for the presence of redoximorphic features, depleted matrix, saturation, and other specific criteria used to document hydric conditions. Each paired wetland and upland soil pit was mapped using a Trimble Geo 7X handheld GPS with sub-meter accuracy.

2.5.1.4 Wetland Hydrology

Hydrology was analyzed for primary and secondary wetland indicators. Primary wetland indicators included visible inundation, soil saturation, water marks, drift lines, sediment deposits, and drainage patterns in wetlands. Secondary wetland indicators of wetland hydrology included observable features such as oxidized root channels associated with living roots, water-stained leaves, soil cracks, and local soil survey data. Once established, the soil pits were left open a sufficient amount of time to allow the apparent high water table, if present, to stabilize.

2.5.1.5 Wetland Determination Data Forms

Sample plots that exhibited qualifying characteristics of hydrophytic vegetation, hydric soils, and wetland hydrology were identified as wetlands. A Wetland Determination Data Form, specific to the Great Plains Region, was completed for each paired wetland and upland sample plot. The wetland determination data forms are included as Appendix 2.

2.5.1.6 Wetland Mapping

A wetland delineation was conducted to identify the transitional area between wetland and upland conditions. Wetland scientists accomplished the delineation by walking the outer limit of visibly identifiable wetland vegetation between the paired wetland and upland sample plots recording the path with a Trimble Geo 7X GPS. The Trimble Geo 7X GPS unit provides an estimated 3-foot (1-meter) survey accuracy (post-processing). The field-collected data were plotted as a map layer using geographic information system (GIS) software. Photographs of select wetlands are provided in the photo log included as Appendix 4.

2.6 Assessment of Other WoUS

Non-wetland WoUS are regulated under the CWA for the placement of dredged or fill materials. The desktop analysis and field surveys identified other WoUS including ephemeral, intermittent, and perennial streams and ponds.

2.6.1 Surface Water Assessment Methodology

Stream and pond features were mapped along their ordinary high water marks (OHWM). The USACE regulations define "ordinary high water mark" as:

> *… that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.*

Once the OHWM was observed in the field by the team, the Trimble Geo 7X GPS unit was used to map this line where it would be crossed by planned elements of Project infrastructure. For streams, a data form was completed in the field documenting stream ID, date of survey, investigators names, channel features, flow characteristics, substrate description, watershed features, the presence of aquatic vegetation and macroinvertebrates.

3. Wetlands and Other WoUS Delineation Results

3.1 Wetlands Impacted by Project Infrastructure

A total of 39 wetlands were delineated in the survey corridor. Of these delineated wetlands, 30 would be impacted by currently planned Project infrastructure and nine would not be impacted, but were delineated in order to document their locations in case the Project design changes in the future. The nine wetlands are either within the survey corridor but outside of the planned Project footprint, or they were previously in the Project footprint but the layout has since been modified to avoid impacts. See Section 3.2 for wetlands that were delineated but are currently not being impacted by the Project. Narratives including the dominate wetland vegetation along with

its indicator status, hydric soil indicator, and hydrology indicator for these delineated wetlands are provided below. Table 4 summarizes the delineated wetlands, the likely jurisdictional status, and the approximate acreage of each feature.

3.1.1 Wetland 1A

Wetland 1A was delineated within the transmission line survey corridor in five segments following an NHD intermittent stream flowline that leads to the Cannonball River, south of the Project area. The five segments are connected as one wetland complex with portions of the wetland outside the transmission line survey corridor. Vegetation in the wetland plot was dominated by prairie cordgrass (*Spartina pectinata*, FACW). Soils in the wetland sample plot qualified for the hydric soil indicator Redox Dark Surface (F6). It included oxidized rhizospheres on living roots in 8 percent of the soil profile were observed. The wetland is likely a jurisdictional WoUS because of its location on an NHD flowline that flows into the Cannonball River.

3.1.2 Wetland 2A

Wetland 2A was delineated within the transmission line corridor and is located approximately ¼ mile west of 122nd Avenue SW between 53rd street SW and 54th Street SW. Vegetation in the wetland plot was dominated by prairie cordgrass (*Spartina Pectinata*, FACW), and soils were observed to be a silty clay loam that qualified for the hydric soil indicator Redox Dark Surface (F6). The delineated wetland area intersects a large NWI mapped wetland, and the proposed transmission line survey corridor. Saturation is visible on aerial imagery and oxidized rhizospheres were observed on living roots. The nearest NHD intermittent stream flowline is about 1,200 feet away, and the wetland is likely isolated. Therefore, the wetland does not likely meet the definition of a jurisdictional WoUS.

3.1.3 Wetland 4A

Wetland 4A was delineated within the transmission line corridor and is located halfway between 53rd Street SW and 54th Street SW on the east side of 121st Avenue. It intersects the transmission line survey corridor and was delineated on an NWI mapped wetland polygon. Vegetation in the wetland sample plot was dominated by soybean crop and foxtail barley (*Hordeum jubatum*, FACW). Soils in the wetland plot were a clay loam and a sandy clay loam which qualified for the hydric soil indicator Redox Dark Surface (F6). Oxidized rhizospheres on living roots were observed to exist throughout the soil profile. An NHD mapped stream flows from this polygon to the north and into cropland on the west side of 121st Avenue. No streams were noted to flow from the wetland, and the wetland is located in a soybean field; therefore, the wetland appears isolated and does not likely meet the definition of a jurisdictional WoUS.

3.1.4 Wetland 2B

Wetland 2B is located on the northwest side of 54th Street SW and 104th Avenue SW, in a crane path leading to Turbines 60 and 61. The wetland is located in an NWI mapped partially drained

PEM wetland area, approximately 406 feet south of an NHD mapped intermittent stream. The wetland is located in a plowed agricultural field and therefore had problematic vegetation. Despite its problematic vegetation the soils were consistent with the Depleted Dark Surface (F7) hydric soil indicator. This wetland is not likely a jurisdictional WoUS because of its location in prior converted cropland.

3.1.5 Wetland 3B

Wetland 3B is located approximately 2,000 feet northeast of the intersection of 107th avenue SW and 54th street SW and is intersected by a proposed collection line. The wetland was delineated as a linear-shaped wetland that runs southeast to northwest on top of an NHD intermittent stream. The wetland is not located in a NWI wetland mapped area; however, there are several NWI mapped wetland polygons on the NHD flowline to the northeast and southwest. This flowline does not continue to a TNW, so this wetland is likely isolated. This wetland is likely not a jurisdictional wetland because of its lack of connectivity to another WoUS.

3.1.6 Wetland 4B

Wetland 4B is located approximately 1,000 feet west of the Turbine 51 immediately north of a proposed crane path. This feature was mapped to show its proximity to Project infrastructure for avoidance purposes.

3.1.7 Wetland 6B

Wetland 6B is located on 108th Avenue SW, north of 54th street SW on a proposed crane path near Turbine 48. Dominant vegetation in the wetland area included broadleaf cattail (*Typha latifolia*, OBL), foxtail barley (*Hordeum jubatum*, FACW), and spikerush (*Eleocharis palustris*, OBL). Soil in the wetland pit met the criteria for Depleted Below Dark Surface (A11) as well as Redox Dark Surface (F6), and oxidized rizospheres on living roots were noted. The wetland is not located in close proximity to any NHD intermittent stream flowlines and is likely isolated. The wetland is also located on two agricultural fields that would likely qualify as prior converted cropland. Therefore, this wetland is not likely a jurisdictional WoUS.

3.1.8 Wetland 8B

Wetland 8B is located between 115th Ave SW and 114th Ave SW near Turbine 21. The wetland is intersected by a proposed collection line, crane path, and transmission line. The wetland follows a linear depression in an NHD flowline. Dominant vegetation within the wetland area included threesquare (*Schoenoplectus pungens*, OBL) and woolly sedge (*Carex pellita*, OBL). Soils in the wetland sample pit qualified for the Redox Dark Surface (F6) hydric soil indicator and 2 inches of surface water was observed. This PEM wetland intersects both planned access road ROW on the north side of the delineated wetland and planned transmission line survey corridor on the south side of the wetland. The wetland is likely a jurisdictional WoUS because of its location on an NHD flowline.

3.1.9 Wetland 9B

Wetland 9B is located on the east side of 114th avenue and is intersected by proposed crane path that leads to Turbine 22. Dominant vegetation in the wetland area included spikerush (*Eleocharis palustris*, OBL), with 70 percent cover. Soil in the wetland sample column met the criteria for the hydric soil indicator Depleted Below Dark Surface (A11), and was noted to be moist at 3 inches below ground surface. Surface soil cracks were observed. A manmade stock pond was noted to the south of the wetland, which had no outlet. The delineated portion of the wetland is located within an NWI mapped polygon. No streams were identified in close proximity to the wetland, and the wetland is not located near NHD flowlines; and is therefore likely isolated. This wetland does not likely meet the definition of a jurisdictional WoUS.

3.1.10 Wetland 1C

Wetland 1C is located along the east side of the access road leading south to Turbine 50. The feature is located within a proposed collection line and crane path. The wetland was identified in a plowed field with limited vegetation cover. Vegetation in the wetland was dominated by cattails (*Typha latifolia*) with only 15 percent cover. Soils were identified using hydric soil indicator Redox Dark Surface (F6) because redox concentrations comprised 5 percent of the soil matrix. Hydrology was identified by the presence of a salt crust as well as oxidized rhizospheres on living roots and geomorphic position. The wetland is located in an agricultural field and likely does not meet the definition of a jurisdictional WoUS because of its location in a prior-converted cropland.

3.1.11 Wetland 2C

Wetland 2C is located approximately 1,800 feet east of Turbine 83 along the proposed collection line alignment. The wetland is located in active cropland with recently tilled soils. The dominant vegetation in the wetland was foxtail barley (*Hordeum jubatum*) comprising 25 percent of the plot. The soils were problematic for determining the hydric indicator in this wetland because of recent tilling. The nearest adjacent wetland (Wetland 3C) had similar soils and it is assumed this wetland would have similar hydric soils without the recent disturbance. The soils were saturated within the upper 12 inches at the time of sampling providing a hydrology indicator. The wetland likely does not meet the definition of a jurisdictional WoUS because of its location in a prior-converted cropland.

3.1.12 Wetland 3C

Wetland 3C is located approximately 1,600 feet west of Turbine 84 intersecting a proposed collection line alignment and crane path. The wetland is located in shallow draw within active croplands. Stream feature 2C bisects the wetland. The dominant vegetation in the wetland was comprised of cattails (*Typha latifolia*) and reed canarygrass (*Phalaris arundinacea*). The hydric soil indicator was Redox Dark Surface (F6) because redox concentrations comprising 5 percent of the soil matrix in the upper 12 inches of soil was present. The hydrology indicators identified included a Dry-season Water Table, Saturation in the upper 12 inches of the soil pit, and a salt

crust. This wetland likely meets the definition of a jurisdictional WoUS because of its close proximity to a channel with a well-defined bed and bank that runs north and eventually into the Heart River.

3.1.13 Wetland 4C

Wetland 4C is located approximately 1.3 miles north of Turbine 86 intersecting the proposed collection line alignment. The wetland is located in a cropland with a larger wetland complex immediately adjacent to the south. The dominant vegetation were cattails (*Typha latifolia*). Redox Dark Surface (F6) was identified as the hydric soil indicator. Hydrology indicator consisted of saturation beginning in the upper 12 inches and the presence of a salt crust. This wetland likely meets the definition of a jurisdictional WoUS because it is adjacent to a larger wetland complex with a nexus to an intermittent or perennial water feature that eventually flows into the Heart River.

3.1.14 Wetland 5C

Wetland 5C is located approximately 890 feet east of Turbine 70 intersecting the proposed collection line alignment. The wetland forms in a lowland area that forms an undefined drainage. Immediately to the south and downgradient is a small pond. The dominant vegetation is prairie cordgrass (*Spartina pectinata*). Soils and hydrology were not observed at this location because the ground was frozen at the time of sampling. This feature was determined to be a wetland based on similar features in the area and through best professional judgement by the wetland scientist. The wetland likely meets the definition of a jurisdictional WoUS because it has a nexus with a perennial water feature that flows into the Heart River, a TNW.

3.1.15 Wetland 6C

Wetland 6C, located approximately 1,700 feet southeast of Turbine 85 intersecting the proposed crane path alignment, is formed within an active cropland. The feature is adjacent to a historic drainage system that has been modified from regular agricultural use and is no longer present. The dominant vegetation in the feature was foxtail barley (*Hordeum jubatum*). Soils and hydrology were not observed at this location because the ground was frozen at the time of sampling. This feature was determined to be a wetland based on similar features in the area and through best professional judgement by the wetland scientist. The wetland likely does not meet the definition of a jurisdictional WoUS because of its location in a prior-converted cropland.

3.1.16 Wetland 7C

Wetland 7C, located approximately 1,650 feet southeast of Turbine 64 intersecting the proposed crane path alignment is formed in an active cropland. The vegetation in the area had been recently tilled. The dominant vegetation in the wetland was cattails (*Typha latifolia*). Soils were not observed at this location because the ground was frozen at the time of sampling. Hydrology was identified by a visible salt crust. This feature was determined to be a wetland based on similar features in the area and through best professional judgement by the wetland scientist. The

wetland likely does not meet the definition of a jurisdictional WoUS because of its location in a prior-converted cropland.

3.1.17 Wetland 2D

Wetland 2D, located approximately 1,550 feet southwest of Turbine 57 intersecting the proposed collection line alignment, is formed in a depressional area surrounded by active croplands. The dominant vegetation in the wetland was foxtail barley (*Hordeum jubatum*). The hydric soil indicator was Depleted Matrix (F3). The hydrology indicator present in the wetland was Oxidized Rhizospheres on Living Roots. The wetland likely meets the definition of a jurisdictional WoUS because it has a nexus with the Heart River, a TNW.

3.1.18 Wetland 5E

Wetland 5E, located approximately 1,000 feet east of Turbine 10 intersecting the proposed collection line and crane path alignments, is formed in a depressional area associated with a historic drainage feature surrounded by active croplands. The dominant vegetation was prairie cordgrass (*Spartina pecinata*). The hydric soil indicator was a Depleted Matrix (F3). Hydrology was identified by Oxidized Rhizospheres in Living Roots and Drainage Patterns. The wetland likely meets the definition of a jurisdictional WoUS because it has a nexus with the Heart River, a TNW.

3.1.19 Wetland 6E

Wetland 6E, located approximately 2,000 feet east of Turbine 3 intersecting the proposed collection line alignment, is formed in a valley bottom surrounded by active croplands. Up gradient, there is a man-made pond that likely drains downslope to aid in the formation of this feature. The dominant vegetation in the wetland was cattails (*Typha latifolia*). The hydric soil indicator was a Depleted Matrix (F3). Hydrology was identified by Drainage Patterns and the FAC-Neutral test. The wetland likely meets the definition of a jurisdictional WoUS because it has a nexus with the Heart River, a TNW.

3.1.20 Wetland 7E

Wetland 7E, located approximately 750 southeast of Turbine 5 intersecting the proposed collection line alignment, is formed in a valley bottom in what was likely a historic drainage feature. The surrounding land use is active croplands. Up gradient to the east is a pond that drains into the feature. Wetland 10F (discussed below) is downgradient of Wetland 7E, but is part of the same wetland complex. The dominant vegetation in the wetland is Baltic rush (*Juncus balticus*). The hydric soil indicator was a Depleted Matrix (F3). Hydrology was identified by Oxidized Rhizospheres in Living Roots, Drainage Patterns and the FAC-Neutral test. The wetland likely meets the definition of a jurisdictional WoUS because it has a nexus with the Heart River, a TNW.

3.1.21 Wetland 8E

Wetland 8E, located approximately 1,400 feet west of Turbine 14 intersecting the proposed collection line alignment, is a fringe wetland abutting an agricultural use pond. This wetland may be considered part of the same wetland complex as Wetland 9E (discussed below). The dominant vegetation in the wetland is Baltic rush (*Juncus balticus*). The hydric soil indicator was a Depleted Matrix (F3). Hydrology was identified by the presence of Oxidized Rhizospheres in Living Roots. The wetland likely meets the definition of a jurisdictional WoUS because it has a nexus with the Heart River, a TNW.

3.1.22 Wetland 9E

Wetland 9E, located approximately 2,700 feet east of Turbine 9 intersecting the proposed collection line and crane path alignments, is formed in a valley bottom in what was likely a historic drainage feature. This wetland may be considered part of the same wetland complex as Wetland 8E (discussed above). The dominant vegetation in the wetland is prairie cordgrass (*Spartina pecinata*). The hydric soil indicator was a Depleted Matrix (F3). Hydrology was identified by the presence of Oxidized Rhizospheres in Living Roots. The wetland likely meets the definition of a jurisdictional WoUS because it has a nexus with the Heart River, a TNW.

3.1.23 Wetland 10E and 10E Continued

Wetland 10E and 10E Continued are part of the same wetland complex located approximated 1,000 feet northeast of Turbine 16 intersecting the collection line and transmission line alignments. The dominant vegetation in the wetland is prairie cordgrass (*Spartina pecinata*). The hydric soil indicator was Depleted Matrix (F3). Hydrology was identified by the presence of Oxidized Rhizospheres in Living Roots and Drainage Patterns. The wetland likely meets the definition of a jurisdictional WoUS because it has a nexus with the Heart River, a TNW.

3.1.24 Wetland 2F

Wetland 2F, located approximately 1,600 feet east of Turbine Alt2 intersecting the proposed collection line alignment, is formed in a historic drainage channel. The dominant vegetation in the wetland is Dudley's rush (*Juncus dudleyi*). The hydric soil indicator was a Depleted Matrix (F3). Hydrology was identified by the presence of Oxidized Rhizospheres in Living Roots. The wetland likely meets the definition of a jurisdictional WoUS because it has a nexus with the Heart River, a TNW.

3.1.25 Wetland 3F

Wetland 3F, located approximately 1,500 feet west of Turbine 23 intersecting the proposed collection line alignment, is formed in a depressional area downgradient from an agricultural pond. The dominant vegetation in the wetland is Baltic rush (*Juncus balticus*). The hydric soil indicator was a Depleted Matrix (F3). Hydrology was identified by the presence of Oxidized Rhizospheres

in Living Roots. The wetland likely meets the definition of a jurisdictional WoUS because it has a nexus with the Heart River, a TNW.

3.1.26 Wetland 5F

Wetland 5F, located approximately 1,240 feet southeast of Turbine 21 intersecting the proposed collection line alignment, is formed in a historic drainage feature surrounded by active cropland. Wetland 8B (discussed above) is part of this wetland complex. The dominant vegetation in the wetland is prairie cordgrass (*Spartina pecinata*). The hydric soil indicator was a Depleted Matrix (F3). Hydrology was identified by the presence of Oxidized Rhizospheres in Living Roots and Drainage Patterns. The wetland likely meets the definition of a jurisdictional WoUS because it has a nexus with the Heart River, a TNW.

3.1.27 Wetland 9F

Wetland 9F, located approximately 1,450 feet west of Turbine 17 intersecting the proposed crane path alignment, is formed in a historic drainage feature surrounded by cropland. The dominant vegetation in the wetland is prairie cordgrass (*Spartina pecinata*). The hydric soil indicator was a Depleted Matrix (F3). Hydrology was identified by the presence of Oxidized Rhizospheres in Living Roots and Drainage Patterns. The wetland likely meets the definition of a jurisdictional WoUS because it has a nexus with the Heart River, a TNW.

3.1.28 Wetland 10F

Wetland 10F, located approximately 1,200 feet south of Turbine 5 intersecting the proposed crane path alignment, is formed in a historic drainage surrounded by croplands. Wetland 7E (discussed above) is part of the same wetland complex. The dominant vegetation in the wetland is prairie cordgrass (*Spartina pecinata*). The hydric soil indicator was a Depleted Matrix (F3). Hydrology was identified by the presence of Oxidized Rhizospheres in Living Roots and Drainage Patterns. The wetland likely meets the definition of a jurisdictional WoUS because it has a nexus with the Heart River, a TNW.

3.1.29 Wetland 1G

Wetland 1G, located approximately 2,200 feet northwest of Turbine 16 along the transmission line survey corridor, is formed in a historic drainage feature. The dominant vegetation in the wetland is prairie cordgrass (*Spartina pecinata*). Soils were not observed at this location because the ground was frozen at the time of sampling. Hydrology was identified by the presence of surface water, Drainage Patterns and Geomorphic Position. The wetland likely meets the definition of a jurisdictional WoUS because it has a nexus with a perennial water feature that flows into a Traditional Navigable Water (TNW).

3.1.30 Wetland Switchyard

A small wetland is located in the northwest corner of the switchyard. Vegetation in the wetland plot was dominated by prairie cordgrass (*Spartina pectinata*, FACW). Soils in the wetland sample plot qualified for the hydric soil indicator Redox Dark Surface (F6). It included oxidized rhizospheres on living roots in 8 percent of the soil profile were observed. The wetland is located within agricultural crop land and, therefore, does not likely meet the definition of a jurisdictional WoUS.

3.2 Wetlands Currently not Impacted by Project Infrastructure

3.2.1 Wetland 3A

Wetland 3A is located approximately ¼ mile south of 53rd street SW, approximately ¾ miles west of 122nd Avenue SW on the transmission line survey corridor. It is a PEM wetland dominated by barnyardgrass (*Echinochloa crus-galli*, FAC), with 40 percent cover; and Mexican fireweed (*Bassia scoparia*, FACU), with 20 percent cover. The vegetation was noted to be altered due to plowing. Soils in the wetland column met the criteria for the hydric soil indicator Redox Dark Surface (F6) and iron deposits were observed in the soil. The wetland is located within agricultural crop land and, therefore, does not likely meet the definition of a jurisdictional WoUS.

3.2.2 Wetland 5A

Wetland 5A is located on the north side of 53rd Street SW approximately ¾ miles east of 122nd Avenue SW. The wetland intersects the proposed transmission line survey corridor. The vegetation community was dominated by prairie cordgrass (*Spartina pectinata*, FACW). Soils in the wetland column were a silt clay that were consistent with the hydric soil indicator Redox Dark Surface (F6) and Depleted Below Dark Surface. The wetland had a water table at 14 inches and was saturated an inch above. Additionally, inundation was visible on aerial imagery. There are several NWI mapped wetlands on the NHD flowline located north and south of Wetland 5A, but the wetland was not delineated on any of these NWI wetlands. This wetland likely meets the definition of a jurisdictional WoUS because of its close proximity to a channel with a well-defined bed and bank that runs north and eventually into the Heart River.

3.2.3 Wetland 6A

Wetland 6A is located on the south side of the transmission line survey corridor approximately 1,700 feet to the east of 118th Avenue SW. The vegetation community was dominated by canola crop and wheat crop, and was therefore noted to be problematic for determining the hydrophytic wetland status. Soils in the wetland column exhibited a profile consistent with the hydric soil indicator Redox Dark Surface (F6). Although primary hydrology indicators were not observed, saturation is visible on aerial imagery and drainage patterns were noted. The wetland is a linear feature that was delineated on an NHD flowline that runs south from the transmission line survey

corridor. The NHD flowline has several mapped NWI wetlands to the south of Wetland 6A, but eventually dissipates into a cropland and does not likely have connectivity to a TNW. Additionally, the wetland is located in a canola field. Therefore, the wetland does not likely fit the definition of a jurisdictional WoUS because of its location in prior converted cropland.

3.2.4 Wetland 7A

Wetland 7A is located approximately 1,500 feet north of Turbine 13. Vegetation in the wetland sample plot was dominated by barnyardgrass (*Echinochloa crus-gali*, FAC), with 40 percent cover. Soils in the wetland sample column were consistent with the hydric soil indicator Redox Dark Surface (F6). Iron deposits, surface soil cracks, and drainage patterns were all observed in the wetland sample plot. The wetland is located in an agricultural field and, therefore, likely does not meet the definition of a jurisdictional WoUS because of its location in a prior-converted cropland.

3.2.5 Wetland 1B

Wetland 1B is located on the northwest corner of 53rd Street Southwest and 10th Avenue Southwest. This wetland is a roadside ditch located upgradient from an NHD mapped intermittent stream 64 feet to the north of the wetland. The wetland is located outside of any NWI mapped wetlands. The wetland is also located approximately 30 feet from the manmade pond delineated as Pond 3B. This pond has a channel visible on aerial imagery that runs to the east and into the NHD intermittent stream. The wetland was dominated by prairie cordgrass (*Spartina pectinata*, FACW), broadleaf cattail (*Typha latifolia*, OBL), and woolly sedge (*Carex pellita*, OBL), and therefore passed the dominance test and rapid test for hydrophytic vegetation. Soils qualified for the Depleted Matrix (F3) hydric soil indicator, and the soil was saturated at 4 inches. The wetland continues on the east side of 10th Ave SW, but was not delineated because it is outside the Project survey area. This wetland is likely a jurisdictional WoUS because of its potential for connectivity to the adjacent pond and NHD intermittent stream.

3.2.6 Wetland 5B

Wetland 5B is located between 106th Avenue SW and 105th Avenue SW on the south side of 52nd St SW. The wetland is a linear feature delineated on a mapped NHD intermittent stream flowline. The length of the wetland is approximately 1,500 feet long, and the majority of it is located within the access road ROW leading to Turbine 53. Dominant vegetation in the wetland sample plot included one tree, plains cottonwood (*Populus deltoides*, FAC) and one herbaceous plant, reed canarygrass (*Phalaris arundinacea*, FACW). Soils in the wetland met the criteria for the hydric soil indicators Thick Dark Surface and Redox Dark Surface (F6). Oxidized rhizospheres were noted on living roots. Although a water table was not observed, the soil was noted to be moist throughout the sample plot column. This wetland likely meets the definition of a jurisdictional WoUS because of its close proximity to a larger stream that can be seen on aerial imagery.

3.2.7 Wetland 7B

Wetland 7B is located approximately 1100 feet north of 52nd Street SW, northeast of the laydown area and outside of the Project infrastructure. Wetland 7B was delineated to show its proximity to Project infrastructure for avoidance purposes.

3.2.8 Wetland 10B

Wetland 10B is located between 114th Avenue and 115th Avenue south of 52nd street near Turbine number 24. The wetland was noted to have a white precipitate on the soil surface, likely representing an alkaline depression. Vegetation within the wetland sample plot included Nutalli's alkalaigrass (*Puccinellia nutalliana*, OBL) and saltgrass (*Distichis spicata*, FACW), but was noted to have a dense community of red swampfire (*Salicornia rubra*, OBL) in the middle of the wetland. The soils in the wetland column met the criteria for Depleted Matrix (F3), and was saturated from the surface. The wetland was delineated as part of an NWI mapped wetland, but is not located near NHD intermittent stream flowlines, and is likely isolated. The wetland does not likely meet the definition of a jurisdictional WoUS.

3.2.9 Wetland 7F

Wetland 7F, located approximately 1,900 feet south of Turbine 22 immediately north of the collection line alignment, is formed in a depressional area adjacent to an agricultural pond. This feature was delineated because of its proximity to the proposed Project infrastructure. The dominant vegetation in the wetland is prairie cordgrass (*Spartina pecinata*). The hydric soil indicator was a Depleted Matrix (F3). Hydrology was identified by the presence of Oxidized Rhizospheres in Living Roots, Inundation Visible on Aerial Imagery, and Geomorphic Position. The wetland likely meets the definition of a jurisdictional WoUS because it has a nexus with the Heart River, a TNW.

Table 4. Wetlands in the Project Area

Wetland Number	Approximate Acreage	Latitude	Longitude	Likely Jurisdictional Status[1]	Sheet Map Number	Project Infrastructure Surveyed Area
1A	1.223	46.6466710	-103.0729796	Jurisdictional	1	Transmission Line Pole 120 – temporary disturbance 0.428 acres
1A	0.026	46.6453231	-103.0712008	Jurisdictional	1	Transmission Line Pole 118 – temporary disturbance 0.012 acres
1A	0.539	46.6453044	-103.0693146	Jurisdictional	1	Transmission Line Pole 117 – temporary disturbance 0.007 acres
1A	1.916	46.6449296	-103.0664211	Jurisdictional	1	Transmission Line Pole 116 – temporary disturbance 0.220 acres
1A	7.475	46.6453261	-103.0612342	Jurisdictional	1	Transmission Line Pole 115 – temporary disturbance 0.418 acres
2A	0.603	46.6369797	-103.0256136	Jurisdictional	2	Transmission Line Pole 98 – temporary disturbance 0.155 acres
3A	0.124	46.6426909	-103.0365269	Non-jurisdictional	1	None, but within Transmission Line Survey Corridor
4A	16.002	46.6369143	-103.0006664	Non-jurisdictional	2	Transmission Line Pole # 89, 90, and 91 – temporary disturbance 3.652 acres, permanent disturbance 0.018 acres
5A	0.789	46.6446700	-103.0398923	Jurisdictional	1	None, but within Transmission Line Survey Corridor
6A	0.770	46.6360574	-102.9430240	Non-jurisdictional	4	None
7A	0.368	46.6377440	-102.9151156	Non-jurisdictional	4	None, but within Transmission Line Survey Corridor
1B	0.086	46.6462361	-102.6429567	Non-jurisdictional	15	None
2B	3.958	46.6365530	-102.6525312	Non-jurisdictional	12	Crane Path

Wetland Number	Approximate Acreage	Latitude	Longitude	Likely Jurisdictional Status[1]	Sheet Map Number	Project Infrastructure Surveyed Area
3B	1.281	46.6348726	-102.6982821	Non-jurisdictional	12	Collection Line
4B	0.057	46.6373444	-102.7000201	Jurisdictional	12	Crane Path
5B	0.931	46.6575795	-102.6757335	Jurisdictional	13	Construction Easement
6B	9.911	46.6344430	-102.7270068	Non-jurisdictional	10	Collection Line & Crane Path
7B	0.405	46.6623161	-102.7795580	Jurisdictional	9	None
8B	2.818	46.6466152	-102.8557874	Jurisdictional	5	Transmission Line Pole 41 – temporary disturbance 0.283 acres Collection Line & Crane Path
9B	0.131	46.6481118	-102.8516732	Non-jurisdictional	5	Crane Path
10B	0.361	46.655698	-102.836915	Non-jurisdictional	7	Construction Easement
1C	0.730	46.6364083	-102.7048631	Non-jurisdictional	10	Collection Line & Crane Path
2C	0.213	46.6756390	-102.6543736	Non-jurisdictional	13	Collection Line
3C	0.872	46.6774454	-102.6501590	Jurisdictional	13	Collection Line & Crane Path
4C	0.755	46.6756648	-102.6309659	Jurisdictional	16	Collection Line
5C	0.211	46.6964757	-102.6314843	Jurisdictional	17	Collection Line
6C	0.641	46.6776221	-102.6344758	Non-jurisdictional	14	Crane Path
7C	2.145	46.6824716	-102.6677631	Non-jurisdictional	16	Crane Path
2D	0.933	46.6372727	-102.6712598	Jurisdictional	12	Collection Line
5E	0.242	46.6329886	-102.9396345	Jurisdictional	4	Collection Line & Crane Path
6E	0.081	46.6427696	-102.9282479	Jurisdictional	4	Collection Line
7E	0.053	46.6471548	-102.9231883	Jurisdictional	4	Collection Line
8E	0.108	46.6488298	-102.8915799	Jurisdictional	5	Collection Line
9E	0.204	46.6487720	-102.8957948	Jurisdictional	5	Collection Line & Crane Path
10E	0.773	46.6380000	-102.8886652	Jurisdictional	5	Collection Line & Transmission Line Pole # 56 – temporary disturbance 0.114 acres
10E	0.077	46.6357523	-102.8870402	Jurisdictional	5	Collection Line
2F	0.656	46.6538750	-102.8419884	Jurisdictional	7	Collection Line

Wetland Number	Approximate Acreage	Latitude	Longitude	Likely Jurisdictional Status[1]	Sheet Map Number	Project Infrastructure Surveyed Area
3F	0.202	46.6544776	-102.8398677	Jurisdictional	7	Collection Line
5F	0.075	46.6459906	-102.8561978	Jurisdictional	5	Collection Line
7F	0.102	46.6466759	-102.8506080	Jurisdictional	6	None
9F	0.082	46.6324720	-102.8818428	Jurisdictional	5	Crane Path
10F	0.289	46.6460694	-102.9247737	Jurisdictional	4	Crane Path
1G	0.518	46.6373772	-102.8953703	Jurisdictional	5	Transmission Line Pole 59 – temporary disturbance 0.180 acres
Switchyard	0.081	46.6586180	-103.0732972	Non-jurisdictional	1	Switchyard Pole – temporary disturbance 0.081 acres

1 Note that only the USACE can render an approved Jurisdictional Determination (JD). The likely jurisdictional status listed in Table 2 only reflect Tetra Tech's understanding of Jurisdictional Waters of the United States. Without a USACE rendered jurisdictional determination, impacts should be avoided to these wetlands.

3.3 Other WoUS Results

3.3.1 Streams

Wetland scientists mapped 14 stream crossings within the surveyed areas of proposed Project infrastructure (Table 5). All of these streams were noted to be tributaries to streams that eventually flow into Antelope Creek, and eventually into the Heart River, which is a TNW. Stream crossings 1B, 2B, and 3B are located within the temporary disturbance area for proposed transmission line poles; stream crossing 3B is also within the temporary disturbance area for a proposed collection line. Stream crossing 4B is within the temporary disturbance area of a proposed crane path. Stream crossings 2D, 3D, and 4D are within the temporary disturbance areas of proposed collection lines and crane paths. The remaining field delineated streams were mapped outside of the temporary disturbance areas of any elements of Project infrastructure.

Table 5. Streams Observed in the Project Area

Stream Number	Stream Name	Acres	Latitude	Longitude	Flow Regime	Likely Jurisdictional Status[1]	Sheet Map Number	Project Infrastructure Surveyed Area
1B	Unnamed tributary of Antelope Creek	1.743	46.6447239	-102.7482279	Ephemeral	Jurisdictional	10	Transmission Line Pole 6 – temporary disturbance 0.236 acres
2B	Unnamed tributary of Antelope Creek	0.041	46.6450523	-102.7717620	Ephemeral	Jurisdictional	8	Transmission Line Pole 7 – temporary disturbance 0.170 acres
3B	Unnamed tributary of	1.230	46.6446389	-102.7995388	Intermittent	Jurisdictional	8	Collection Line & Transmission Line

Stream Number	Stream Name	Acres	Latitude	Longitude	Flow Regime	Likely Jurisdictional Status[1]	Sheet Map Number	Project Infrastructure Surveyed Area
	Antelope Creek							Pole #23 – temporary disturbance 0.095
4B	Unnamed tributary of Antelope Creek	0.426	46.635302	-102.885421	Intermittent	Jurisdictional	12	Crane Path
4B	Unnamed tributary of Antelope Creek	0.263	46.63139	-102.881293	Intermittent	Jurisdictional	5	None
5B	Unnamed tributary of Antelope Creek	0.283	46.632057	-102.871737	Ephemeral	Jurisdictional	5	None
1C	Unnamed tributary of Antelope Creek	0.014	46.6345331	-102.8927092	Ephemeral	Jurisdictional	5	None
2C	Unnamed tributary of Antelope Creek	0.002	46.676904	-102.65004	Intermittent	Jurisdictional	13	Collection Line
2D	Unnamed tributary of Antelope Creek	0.472	46.6494258	-102.7431141	Ephemeral	Jurisdictional	10	None
2D	Unnamed tributary of Antelope Creek	1.001	46.6517412	-102.7444856	Ephemeral	Jurisdictional	10	None, but Construction Easement
2D	Unnamed tributary of Antelope Creek	1.910	46.6558585	-102.7444040	Ephemeral	Jurisdictional	11	Collection Line & Crane Path
3D	Unnamed tributary of Antelope Creek	0.563	46.6377121	-102.6827472	Ephemeral	Jurisdictional	12	Collection Line & Crane Path
4D	Unnamed tributary of Antelope Creek	0.023	46.6742969	-102.6805641	Ephemeral	Jurisdictional	13	Collection Line & Crane Path
1G	Unnamed tributary of Antelope Creek	0.321	46.6367252	-102.9914035	Ephemeral	Jurisdictional	3	None, but within Transmission Line Survey corridor

1 Note that only the USACE can render an approved Jurisdictional Determination (JD). The likely jurisdictional status listed in Table 5 only reflect Tetra Tech's understanding of Jurisdictional Waters of the United States. Without a USACE rendered jurisdictional determination, impacts should be avoided to these streams.

The flow regime of a stream describes how often it contains flowing water. Perennial streams contain flowing water for the whole year. Intermittent streams flow in response to both precipitation

events and from spring sources; this flow is typically not year-long. Ephemeral streams flow only in response to precipitation events and, as such, they are more often dry than flowing. The bank-full width was measured as the average width of the stream where it was to be crossed by planned elements of the Project infrastructure. **Appendix 3** contains full field data sheets for the streams recorded during field reconnaissance.

3.3.2 Ponds

Ten ponds were observed during field surveys (Table 6). These ponds were, or are, currently used in support of agricultural land. The likely jurisdictional status of each pond was determined based on connectivity to a stream feature that drains into a TNW. Ponds 1A and 2A are located within the temporary disturbance area for transmission line poles. Pond 2B is within the temporary disturbance area for a crane path. The remaining field delineated ponds were mapped outside of the temporary disturbance areas of any elements of Project infrastructure.

Table 6. Ponds Observed in the Project Area

Pond Number	Acres	Latitude	Longitude	Likely Jurisdictional Status[1]	Sheet Map Number	Project Infrastructure Surveyed Area
1A	0.228	46.637133	-102.888054	Jurisdictional	18	Transmission Line Pole 56 with a temporary disturbance 0.020
2A	0.082	46.640792	-102.87222	Non-jurisdictional	5	Transmission Line Pole 49 with a temporary disturbance 0.046
1B	0.379	46.700481	-102.628909	Jurisdictional	17	None, but within the Construction Easement
2B	1.013	46.701599	-102.611094	Jurisdictional	17	Crane Path
3B	0.329	46.646213	-102.643305	Jurisdictional	145	None
4B	0.323	46.63575	-102.699618	Jurisdictional	12	None
5B	0.632	46.634805	-102.883598	Jurisdictional	5	None
6B	0.335	46.632546	-102.873049	Jurisdictional	5	None
1C	0.053	46.696224	-102.631433	Jurisdictional	17	None
1D	0.355	46.640924	-102.731651	Jurisdictional	10	None

1 Note that only the USACE can render an approved Jurisdictional Determination (JD). The likely jurisdictional status listed in Table 6 only reflect Tetra Tech's understanding of Jurisdictional Waters of the United States. Without a USACE rendered jurisdictional determination, impacts should be avoided to these streams.

3.4 Upland Features

3.4.1 Swales

Several swale features were observed during field reconnaissance. Swales are linear or curvilinear depressional features that naturally collect overland flows from surrounding uplands. Many of the swale locations that were mapped by the field team were initially investigated because the desktop analysis identified NHD-mapped intermittent and perennial streams at these locations. Upon field observation, the locations marked as swales were determined to lack defined beds, banks, and scoured channels. They did not contain wetland plants, but instead, were generally vegetated with upland species. They are non-jurisdictional and do not need to be avoided.

4. Conclusions and Recommendations

Sixty-seven delineated feature crossings are shown on the sheet maps included as Appendix 1, Figure 3. These 68 features include 44 wetlands, 14 streams, and 10 ponds. Twelve features were mapped in previous alignments and are now outside of the temporary disturbance areas. Additionally, four features occur in the construction easement. Wetlands or other WoUS that occur in construction easements should be flagged and avoided. The remaining 42 delineated feature crossings occur within temporary disturbance areas for the transmission line, collection lines, crane paths, or the switchyard. The wetlands or other WoUS features are discussed by infrastructure impacts below.

4.1 Transmission Line

Impacts to wetlands or other WoUS from the transmission line are anticipated to be limited to the placement of transmission line poles. Based on the current layout, 15 delineated features intersect the temporary disturbance area for transmission line pole locations: two ponds, three streams, and 10 wetlands. Wetlands and other WoUS should be avoided by spanning whenever possible, and by minimizing the temporary disturbance during pole installation. The proposed temporary disturbance for each transmission line pole is 250 feet by 250 feet (1.4 acres). Brady Wind plans to place matting down to protect potential impacts to the wetlands. Wetlands and other WoUS protected by matting would not be considered a temporary disturbance.

Additionally, three of the transmission line poles (#89, 90, and 91) would be placed in Wetland 4A (Figure 3, Sheet 2). The installation of a transmission line pole would be considered a permanent impact to a potential jurisdictional feature. The total permanent disturbance for each pole location is estimated to be 0.006 acres. The total permanent disturbance for Wetland 4A would be 0.018 acres. This is below the PCN limit of 0.1 acres of permanent disturbance. Based on the proposed placement of protective matting in the wetlands during construction and the permanent disturbance of less than 0.1 acre, no PCN or permit would likely be required.

4.2 Collection Lines

Twenty-one features are intersected by proposed collection lines. The installation of collection lines is typically considered a temporary disturbance. USACE recommends the installation of collection lines using a direct bury technique. This process is not regulated by the USACE and is therefore not subject to permitting. If this technique is not available, installation of the collection lines by trenching is regulated under the 404 permitting process because it causes the temporary placement of dredged material in jurisdictional features. Brady Wind has committed to boring under the delineated features where they intersect with collection lines (**Figure 3**). Boring under jurisdictional features is also not regulated by the USACE and therefore, no PCN or permit would likely be required.

4.3 Crane Paths

Crane paths may be considered a temporary disturbance if deep ruts or mechanical damage to soils results in alterations to the topography or functionality. It is recommended that matting be utilized to protect any jurisdictional feature prior to crossing. No PCN or permit would be required for crossing jurisdictional features if matting is employed and no impacts are created.

4.4 Switchyard

One wetland less than 0.1 an acre is located in the 30-acre switchyard parcel. The switchyard layout was designed to avoid the wetland (**Figure 3**). In addition if impacts to the wetland occur during construction, the feature is below the minimum permitting threshold. No PCN or permit would likely be required for impacts to this wetland. Brady Wind has indicated that a fence will be installed around the wetland during construction to prevent temporary impacts to the wetland.

4.5 USACE Permitting

Based on the estimated permanent and temporary impacts to wetlands and other WoUS from the proposed Project, a CWA Section 404 permit is not required. If no permit is required but temporary impacts are necessary, the USACE would likely require the action follow the General and Regional Conditions of the applicable nationwide permits (NWP) included in Appendix 5. NWP #12 – Utility Line Activities and NWP #14 Linear Transportation Activities are the two permits that likely may apply to the proposed Project. NWP 12 applies to projects that install power transmitting infrastructure; NWP 14 was established for road projects. The USACE in particular emphasizes the following measures to minimize impacts to wetlands or other WoUS:

- The use of mats or other measures to minimize soil disturbance in jurisdictional areas.
- Ensure no temporary fills remain in the jurisdictional areas
- Any affected jurisdictional areas be returned to pre-construction contours and the affected areas be revegetated

Tetra Tech also recommends Brady Wind follow best management practices (BMPs) included as Appendix 6 during construction of the Project to further avoid and minimize impacts to wetlands and other WoUS. The following bullet points summarize some of the BMPs in Appendix 6 which are specific to wetlands and other WoUS:

- BMP-6: avoid and/or minimize impacting drainage features such as ditches, culverts, levees, tiles, terraces.
- BMP-13: identify, avoid, and/or minimize adverse impacts to wetlands and waterbodies, including placing structure foundations below the OHWM of WoUS.
- BMP-16: access road construction should minimize impacting streams.
- BMP-22: all permanent or temporary crossings of waterbodies should be designed to maintain low flows for aquatic species movement and designed to function during high flows.
- BMP-25: work within WoUS should occur during periods of low flow or no flow.

5. References

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———. 2015b. The National Map. Raster. Accessed 5/5/15. Available online: ftp://nhdftp.usgs.gov/DataSets/Staged/SubRegions/

Appendix 1:
Figures

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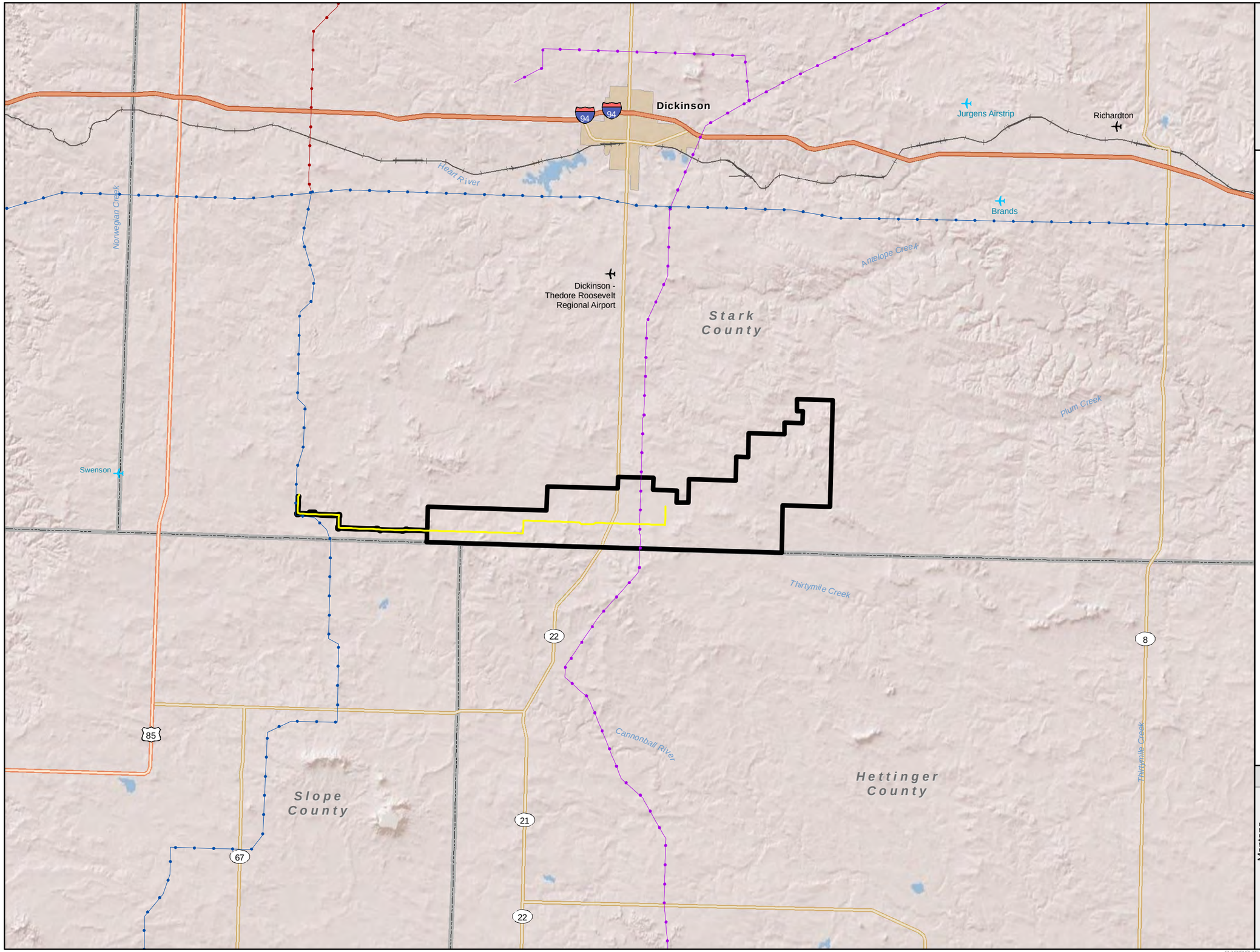
Figure 1
Project Vicinity

Brady Wind Energy Center
Stark County, North Dakota



Legend

- Proposed Project Area
- Proposed Transmission Line (1/14/16)

Existing Transmission Lines

- 115kV Transmission Line
- 230kV Transmission Line
- 345kV Transmission Line

Transportation

- Public Airport
- Private Airport
- Interstate
- Highway
- Major Road
- Railroad
- County Boundary
- Urban Area

N

0 1 2 4
Miles

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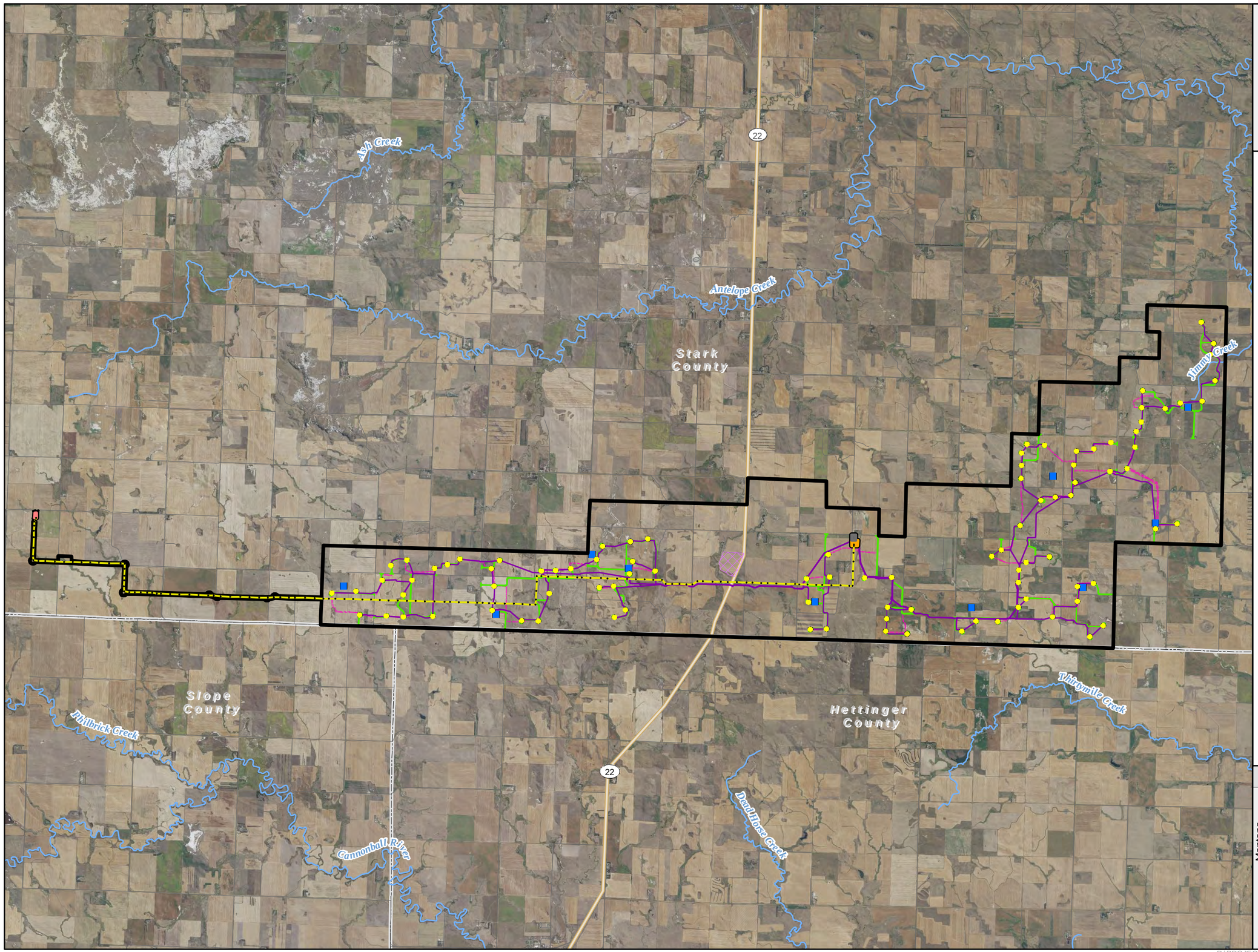
Figure 2
Project Location

Brady Wind Energy Center
Stark County, North Dakota



Legend

- Proposed Project Area

Proposed Project Infrastructure

- Turbines (11/6/15)
- Transmission Poles (1/21/16)
- Met Tower (11/11/15)
- Transmission Line (1/14/16)
- Collection Lines (12/14/15)
- Service Roads (12/1415)
- Laydown Areas (10/27/15)
- O&M Building (8/13/15)
- Substation (8/13/15)
- Switchyard(8/13/15)
- Crane Paths (11/20/15)
- County Boundary
- Stream/River
- Major Road
- Local Road

N

0 0.5 1 2
Miles

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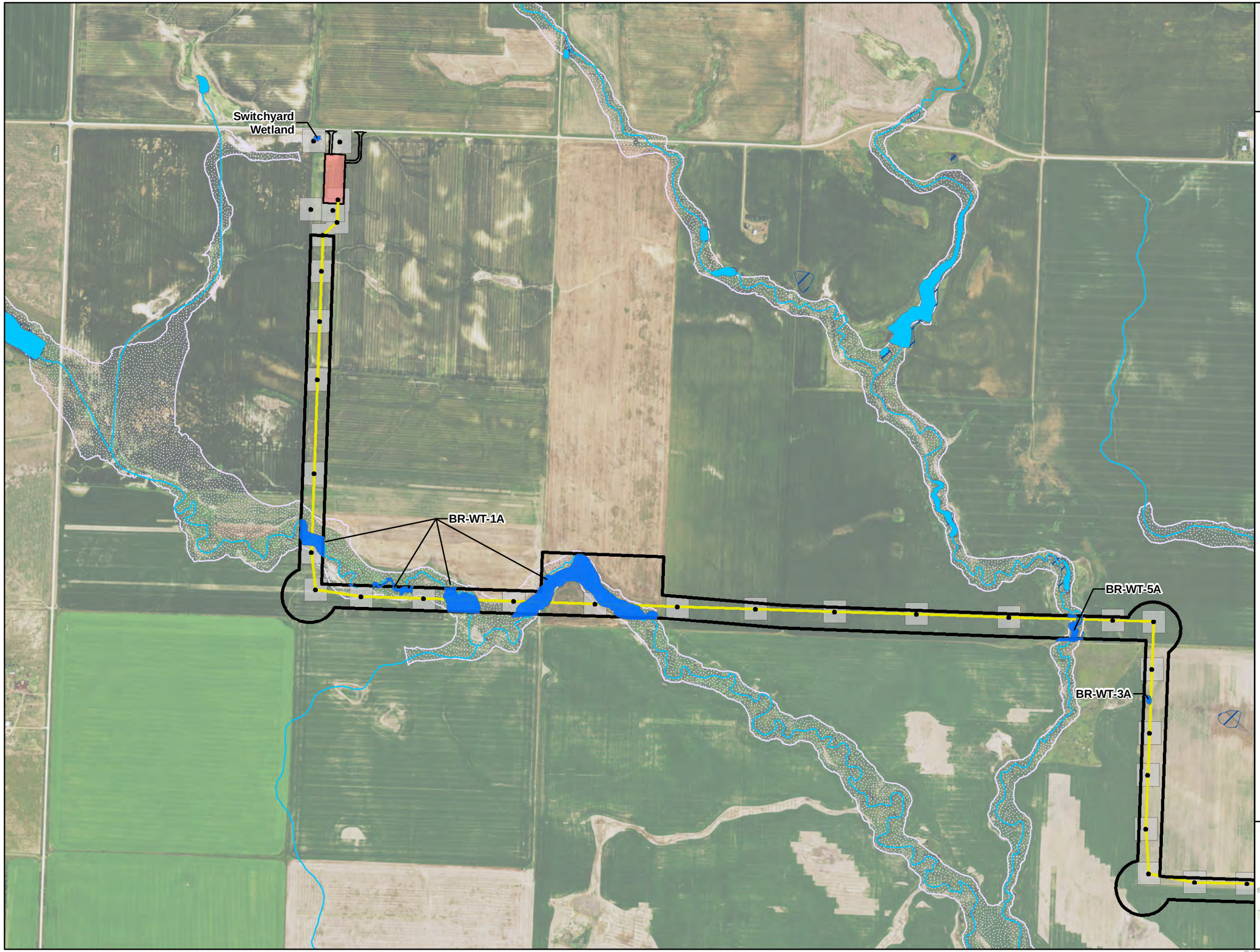
Figure 3
Project Area Detail
Sheet 1 of 18

Brady Wind Energy Center
Stark County, North Dakota



Legend

- Proposed Project Area
- County Boundary
- Major Road

Proposed Project Infrastructure

- Turbines (11/6/15)
- Transmission Poles (1/21/16)
- Met Tower (11/11/15)
- Transmission Line (1/14/16)
- Bore Locations (12/14/15)
- Collection Lines (12/14/15)
- Service Roads (12/1415)
- Laydown Areas (10/27/15)
- O&M Building (8/13/15)
- Substation (8/13/15)
- Switchyard(8/13/15)

Desktop Analysis Data

- Crane Paths (11/20/15)
- Temporary Disturbance Area
- NHD Stream or Waterbody
- NWI Wetland
- Hydric Soils
- 100-year Flood Zone

Field Delineated Features

- Swale
- Upland
- Pond
- Stream
- Swale
- Wetland

N

0 500 1,000 2,000

Feet

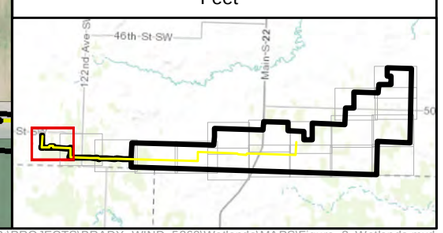


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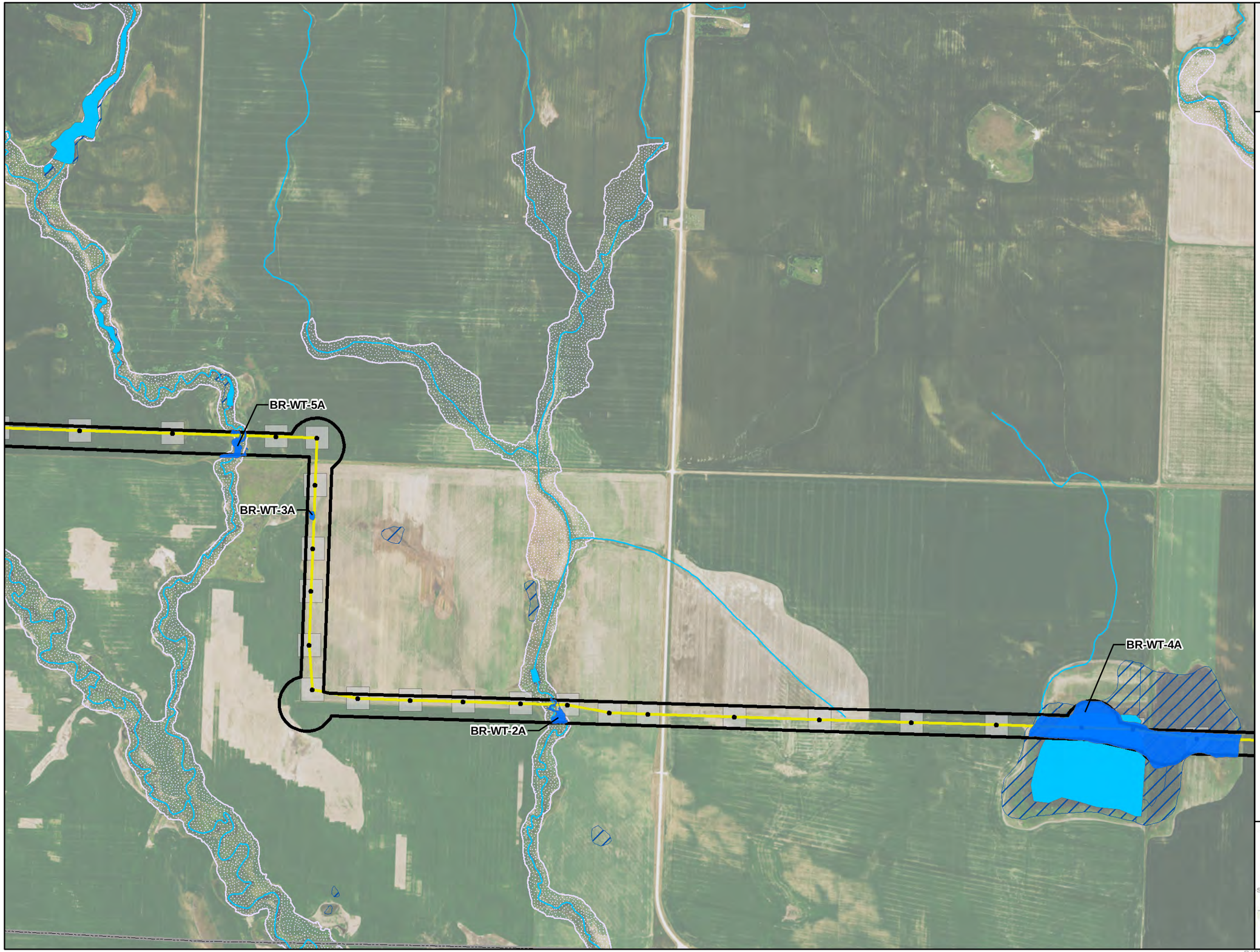
Figure 3
Project Area Detail
Sheet 2 of 18

Brady Wind Energy Center
Stark County, North Dakota



Legend

- Proposed Project Area
- County Boundary
- Major Road

Proposed Project Infrastructure

- Turbines (11/6/15)
- Transmission Poles (1/21/16)
- Met Tower (11/11/15)
- Transmission Line (1/14/16)
- Bore Locations (12/14/15)
- Collection Lines (12/14/15)
- Service Roads (12/1415)
- Laydown Areas (10/27/15)
- O&M Building (8/13/15)
- Substation (8/13/15)
- Switchyard(8/13/15)

Desktop Analysis Data

- Crane Paths (11/20/15)
- Temporary Disturbance Area
- NHD Stream or Waterbody
- NWI Wetland
- Hydric Soils
- 100-year Flood Zone

Field Delineated Features

- Swale
- Upland
- Pond
- Stream
- Swale
- Wetland

N

0 500 1,000 2,000

Feet

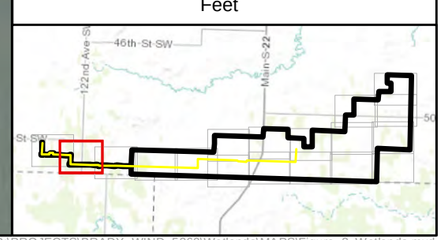


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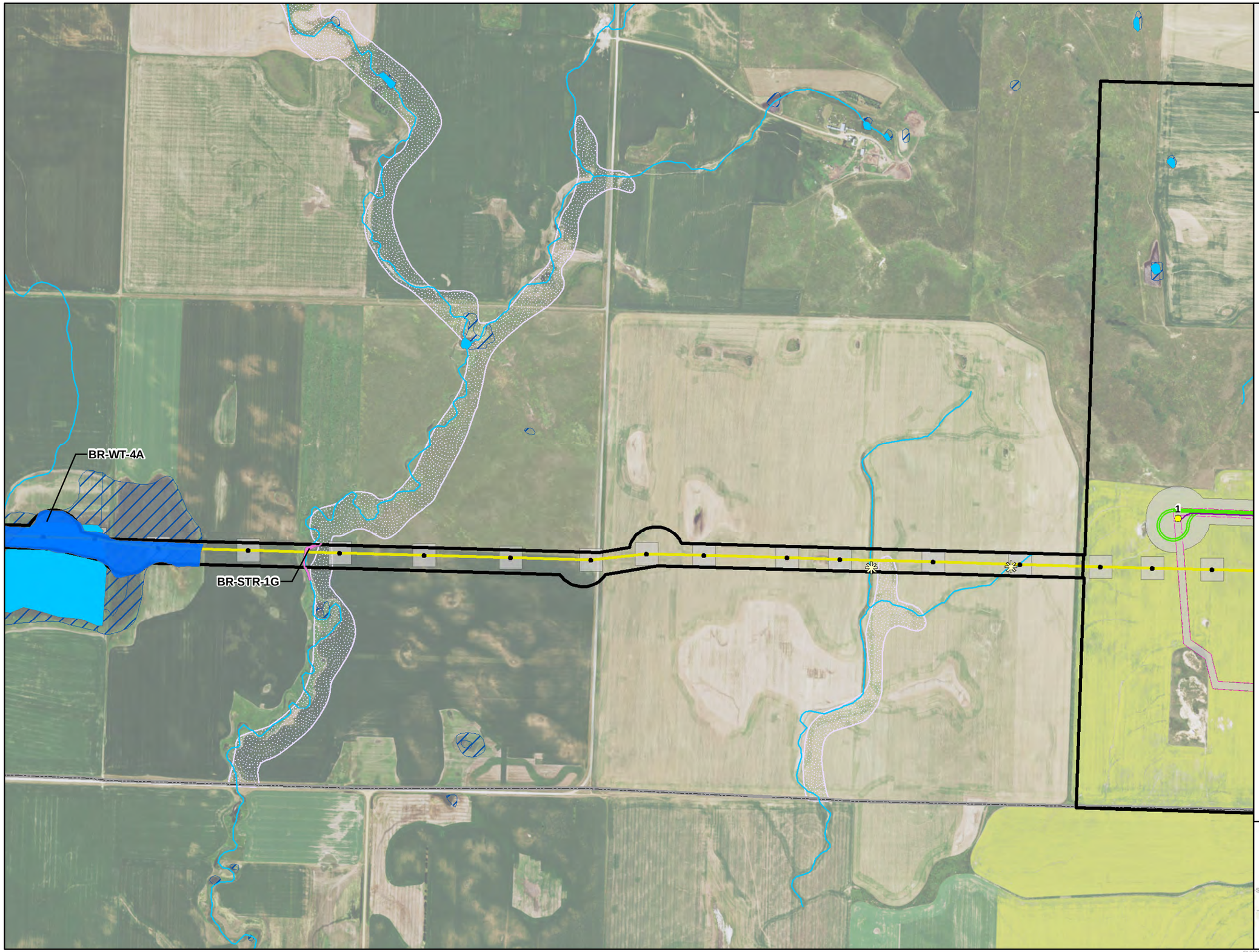
Figure 3
Project Area Detail
Sheet 3 of 18

Brady Wind Energy Center
Stark County, North Dakota



Legend

- Proposed Project Area
- County Boundary
- Major Road

Proposed Project Infrastructure

- Turbines (11/6/15)
- Transmission Poles (1/21/16)
- Met Tower (11/11/15)
- Transmission Line (1/14/16)
- Bore Locations (12/14/15)
- Collection Lines (12/14/15)
- Service Roads (12/1415)
- Laydown Areas (10/27/15)
- O&M Building (8/13/15)
- Substation (8/13/15)
- Switchyard(8/13/15)

Desktop Analysis Data

- Crane Paths (11/20/15)
- Temporary Disturbance Area
- NHD Stream or Waterbody
- NWI Wetland
- Hydric Soils
- 100-year Flood Zone

Field Delineated Features

- Swale
- Upland
- Pond
- Stream
- Swale
- Wetland

N

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Feet

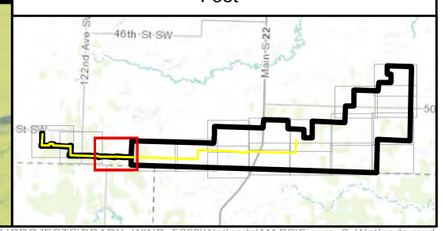

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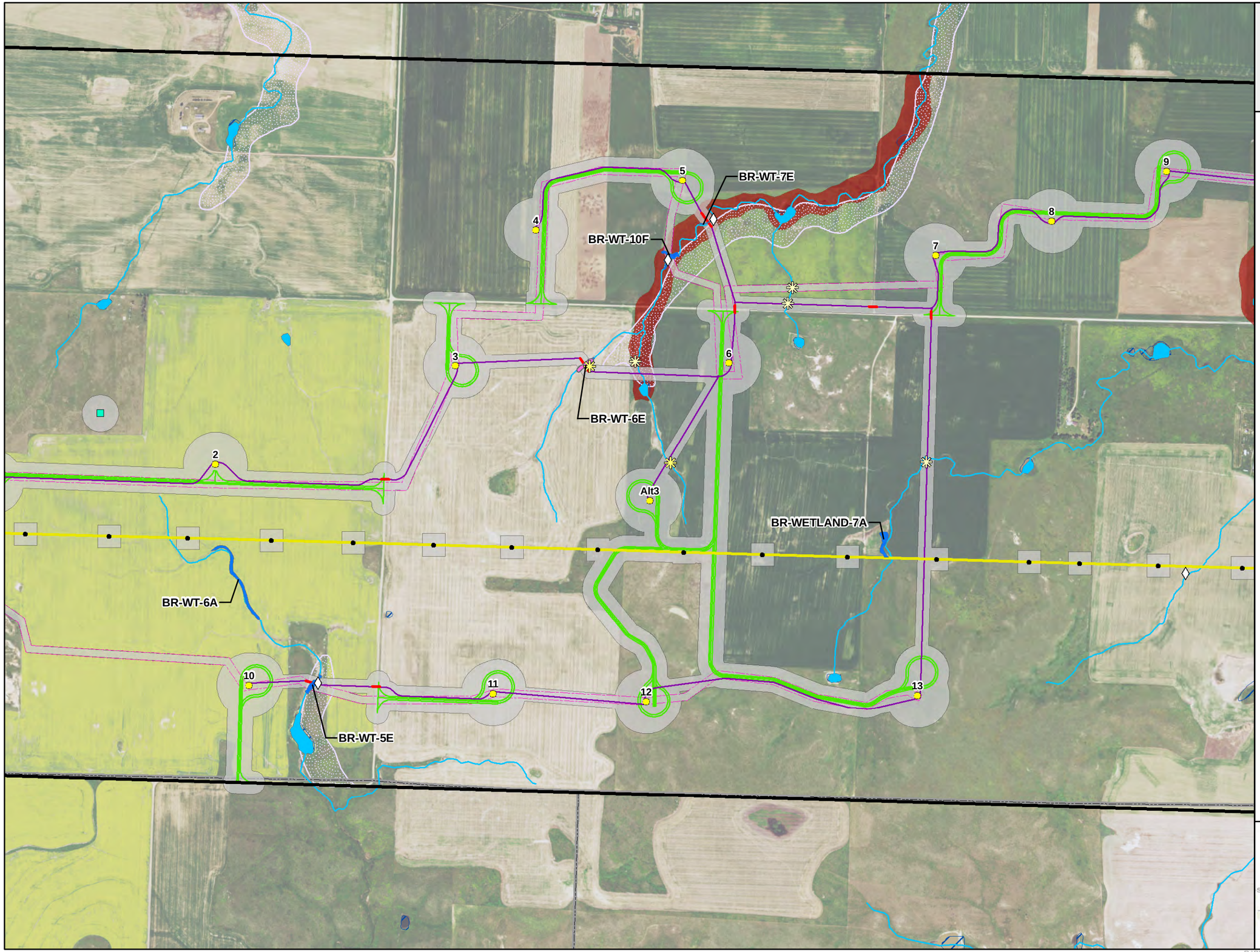
Figure 3
Project Area Detail
Sheet 4 of 18

Brady Wind Energy Center
Stark County, North Dakota



Legend

- Proposed Project Area
- County Boundary
- Major Road

Proposed Project Infrastructure

- Turbines (11/6/15)
- Transmission Poles (1/21/16)
- Met Tower (11/11/15)
- Transmission Line (1/14/16)
- Bore Locations (12/14/15)
- Collection Lines (12/14/15)
- Service Roads (12/1415)
- Laydown Areas (10/27/15)
- O&M Building (8/13/15)
- Substation (8/13/15)
- Switchyard(8/13/15)

Desktop Analysis Data

- Crane Paths (11/20/15)
- Temporary Disturbance Area
- NHD Stream or Waterbody
- NWI Wetland
- Hydric Soils
- 100-year Flood Zone

Field Delineated Features

- Swale
- Upland
- Pond
- Stream
- Swale
- Wetland

N

0 500 1,000 2,000
Feet

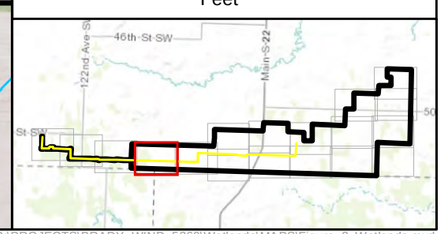


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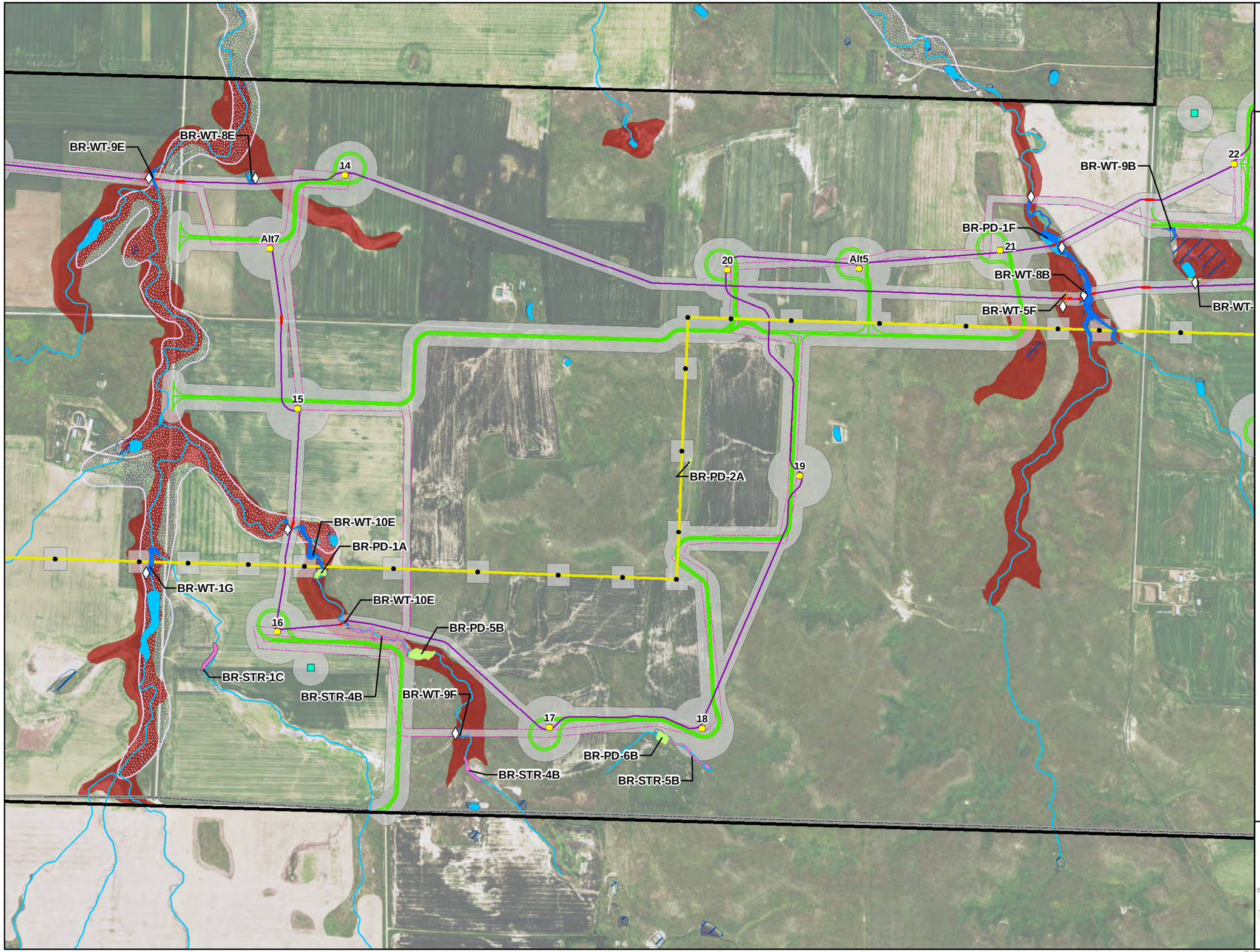
Figure 3
Project Area Detail
Sheet 5 of 18

Brady Wind Energy Center
Stark County, North Dakota



Legend

- Proposed Project Area
- County Boundary
- Major Road

Proposed Project Infrastructure

- Turbines (11/6/15)
- Transmission Poles (1/21/16)
- Met Tower (11/11/15)
- Transmission Line (1/14/16)
- Bore Locations (12/14/15)
- Collection Lines (12/14/15)
- Service Roads (12/1415)
- Laydown Areas (10/27/15)
- O&M Building (8/13/15)
- Substation (8/13/15)
- Switchyard(8/13/15)

Desktop Analysis Data

- Crane Paths (11/20/15)
- Temporary Disturbance Area
- NHD Stream or Waterbody
- NWI Wetland
- Hydric Soils
- 100-year Flood Zone

Field Delineated Features

- Swale
- Upland
- Pond
- Stream
- Swale
- Wetland

N

0 500 1,000 2,000
Feet

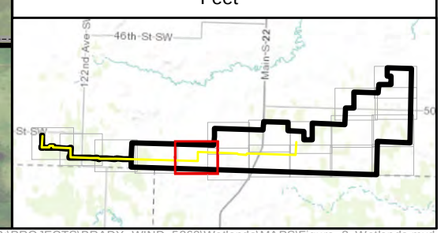


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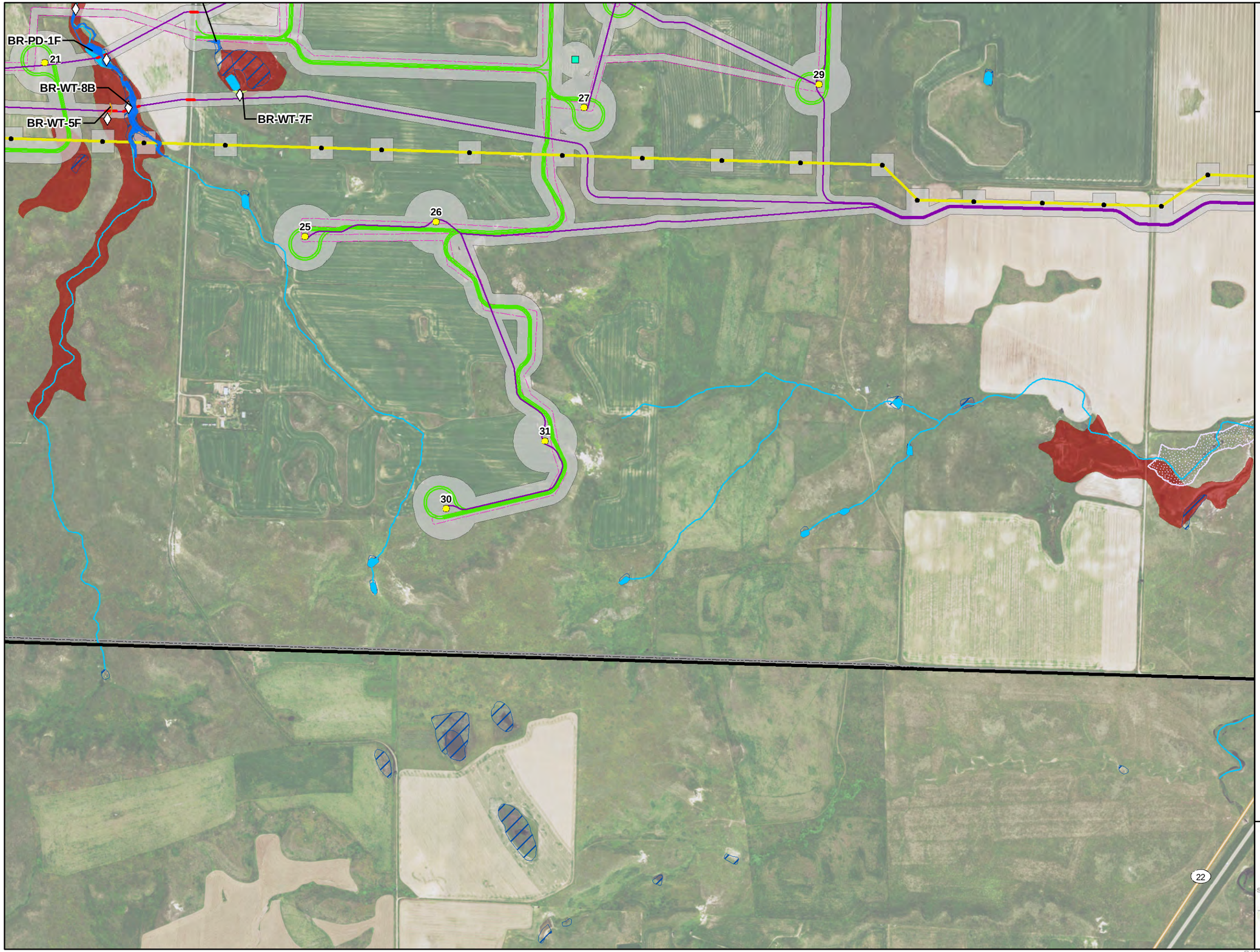
Figure 3
Project Area Detail
Sheet 6 of 18

Brady Wind Energy Center
Stark County, North Dakota



Legend

- Proposed Project Area
- County Boundary
- Major Road

Proposed Project Infrastructure

- Turbines (11/6/15)
- Transmission Poles (1/21/16)
- Met Tower (11/11/15)
- Transmission Line (1/14/16)
- Bore Locations (12/14/15)
- Collection Lines (12/14/15)
- Service Roads (12/1415)
- Laydown Areas (10/27/15)
- O&M Building (8/13/15)
- Substation (8/13/15)
- Switchyard(8/13/15)

Desktop Analysis Data

- Crane Paths (11/20/15)
- Temporary Disturbance Area
- NHD Stream or Waterbody
- NWI Wetland
- Hydric Soils
- 100-year Flood Zone

Field Delineated Features

- Swale
- Upland
- Pond
- Stream
- Swale
- Wetland

N

0 500 1,000 2,000

Feet

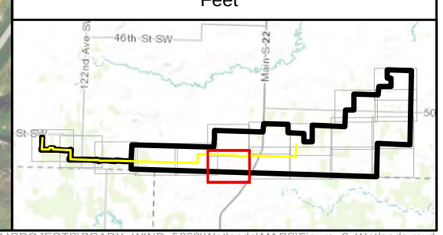


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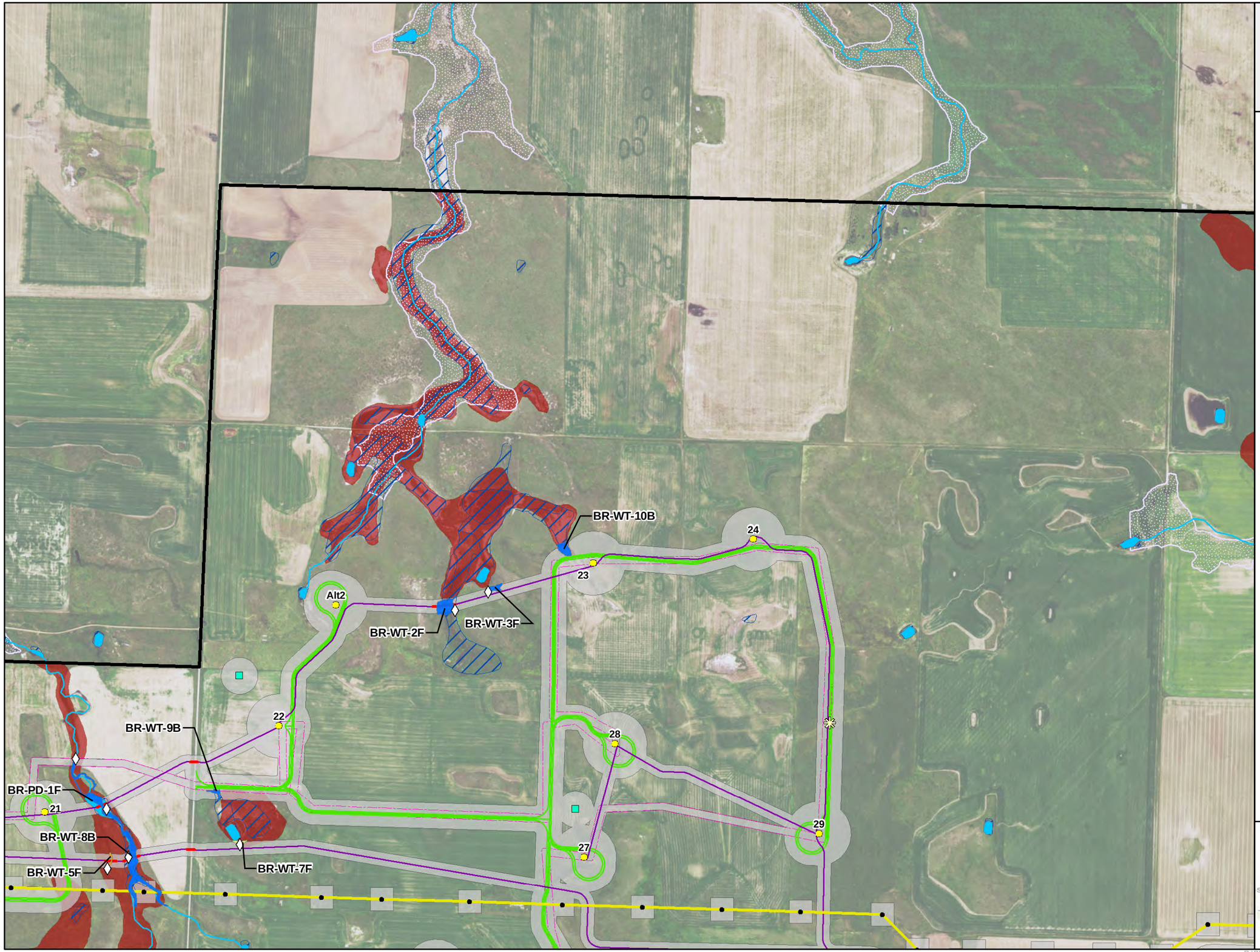
Figure 3
Project Area Detail
Sheet 7 of 18

Brady Wind Energy Center
Stark County, North Dakota



Legend

- Proposed Project Area
- County Boundary
- Major Road

Proposed Project Infrastructure

- Turbines (11/6/15)
- Transmission Poles (1/21/16)
- Met Tower (11/11/15)
- Transmission Line (1/14/16)
- Bore Locations (12/14/15)
- Collection Lines (12/14/15)
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- Laydown Areas (10/27/15)
- O&M Building (8/13/15)
- Substation (8/13/15)
- Switchyard(8/13/15)

Desktop Analysis Data

- Crane Paths (11/20/15)
- Temporary Disturbance Area
- NHD Stream or Waterbody
- NWI Wetland
- Hydric Soils
- 100-year Flood Zone

Field Delineated Features

- Swale
- Upland
- Pond
- Stream
- Swale
- Wetland

N

0 500 1,000 2,000

Feet

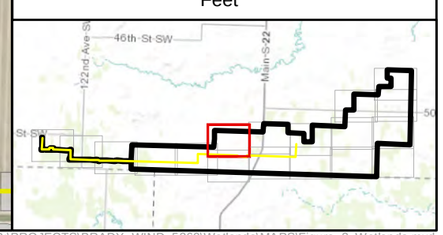

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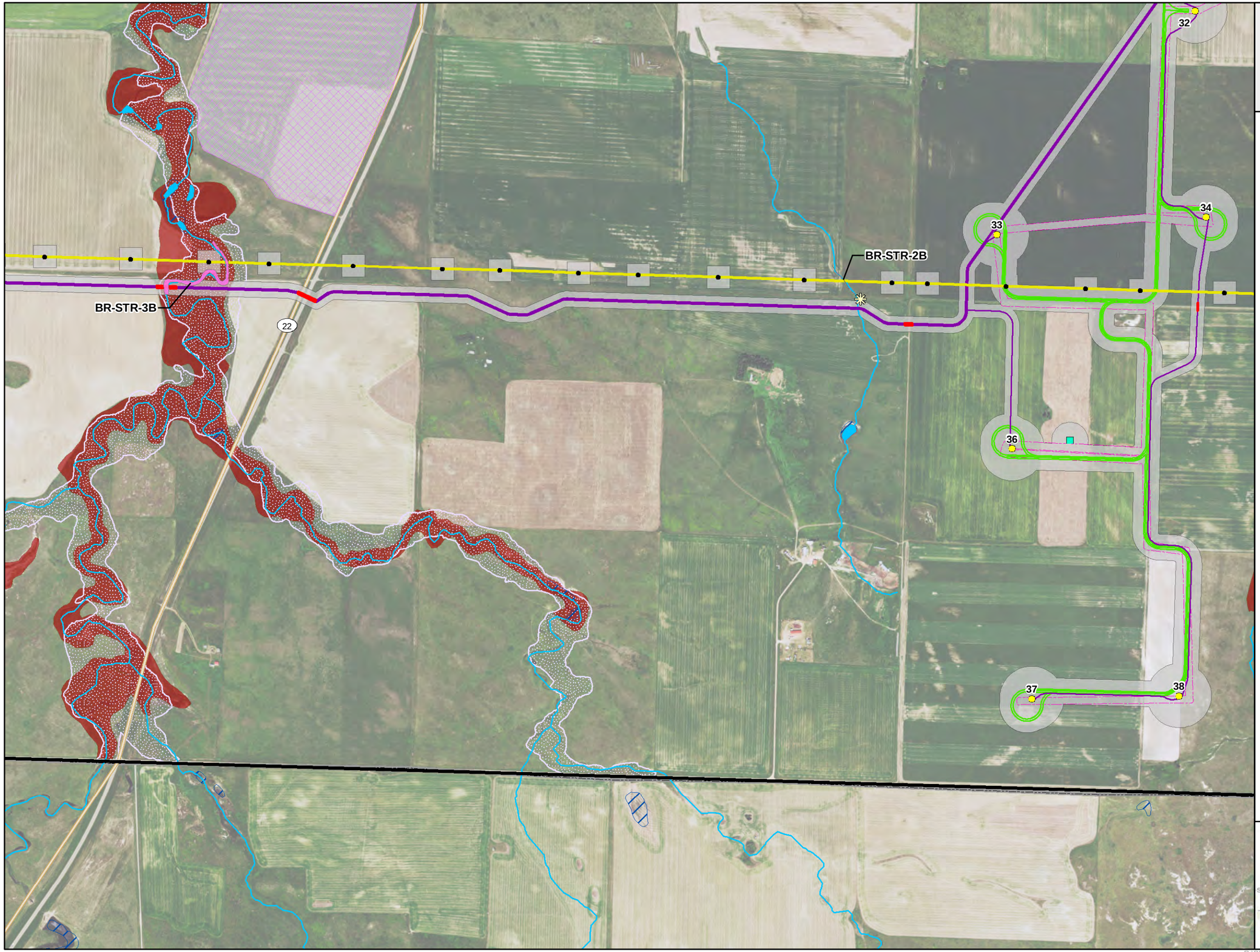
Figure 3
Project Area Detail
Sheet 8 of 18

Brady Wind Energy Center
Stark County, North Dakota



Legend

- Proposed Project Area
- County Boundary
- Major Road

Proposed Project Infrastructure

- Turbines (11/6/15)
- Transmission Poles (1/21/16)
- Met Tower (11/11/15)
- Transmission Line (1/14/16)
- Bore Locations (12/14/15)
- Collection Lines (12/14/15)
- Service Roads (12/1415)
- Laydown Areas (10/27/15)
- O&M Building (8/13/15)
- Substation (8/13/15)
- Switchyard(8/13/15)

Desktop Analysis Data

- Crane Paths (11/20/15)
- Temporary Disturbance Area
- NHD Stream or Waterbody
- NWI Wetland
- Hydric Soils
- 100-year Flood Zone

Field Delineated Features

- Swale
- Upland
- Pond
- Stream
- Swale
- Wetland

N

0 500 1,000 2,000

Feet

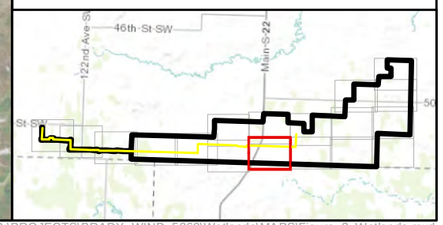


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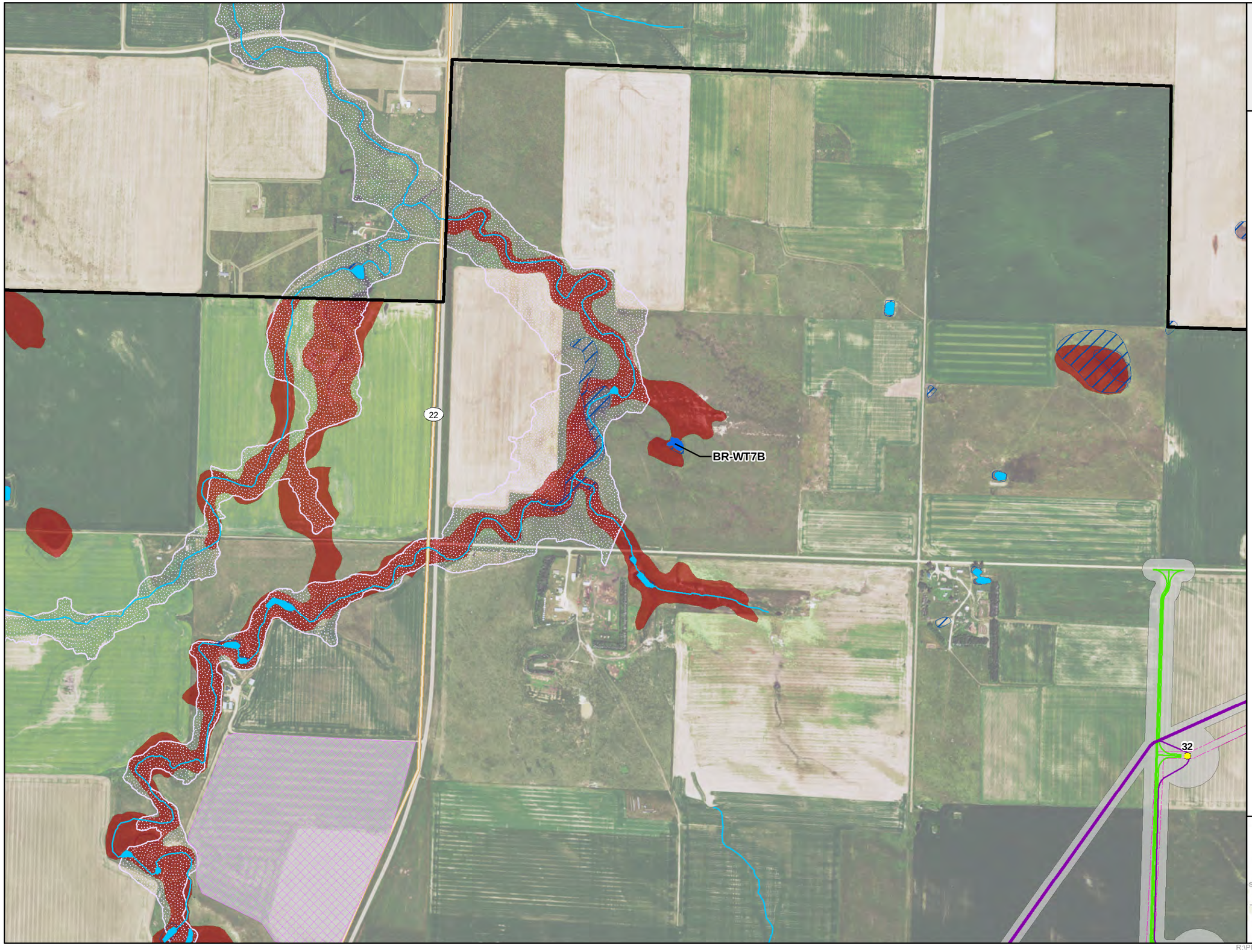
Figure 3
Project Area Detail
Sheet 9 of 18

Brady Wind Energy Center
Stark County, North Dakota



Legend

- Proposed Project Area
- County Boundary
- Major Road

Proposed Project Infrastructure

- Turbines (11/6/15)
- Transmission Poles (1/21/16)
- Met Tower (11/11/15)
- Transmission Line (1/14/16)
- Bore Locations (12/14/15)
- Collection Lines (12/14/15)
- Service Roads (12/1415)
- Laydown Areas (10/27/15)
- O&M Building (8/13/15)
- Substation (8/13/15)
- Switchyard(8/13/15)

Desktop Analysis Data

- Crane Paths (11/20/15)
- Temporary Disturbance Area
- NHD Stream or Waterbody
- NWI Wetland
- Hydric Soils
- 100-year Flood Zone

Field Delineated Features

- Swale
- Upland
- Pond
- Stream
- Swale
- Wetland

N

0 500 1,000 2,000

Feet

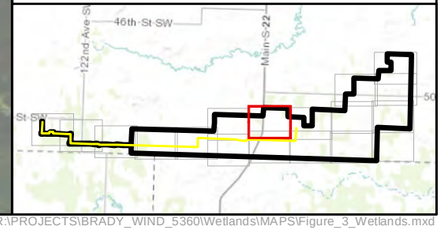


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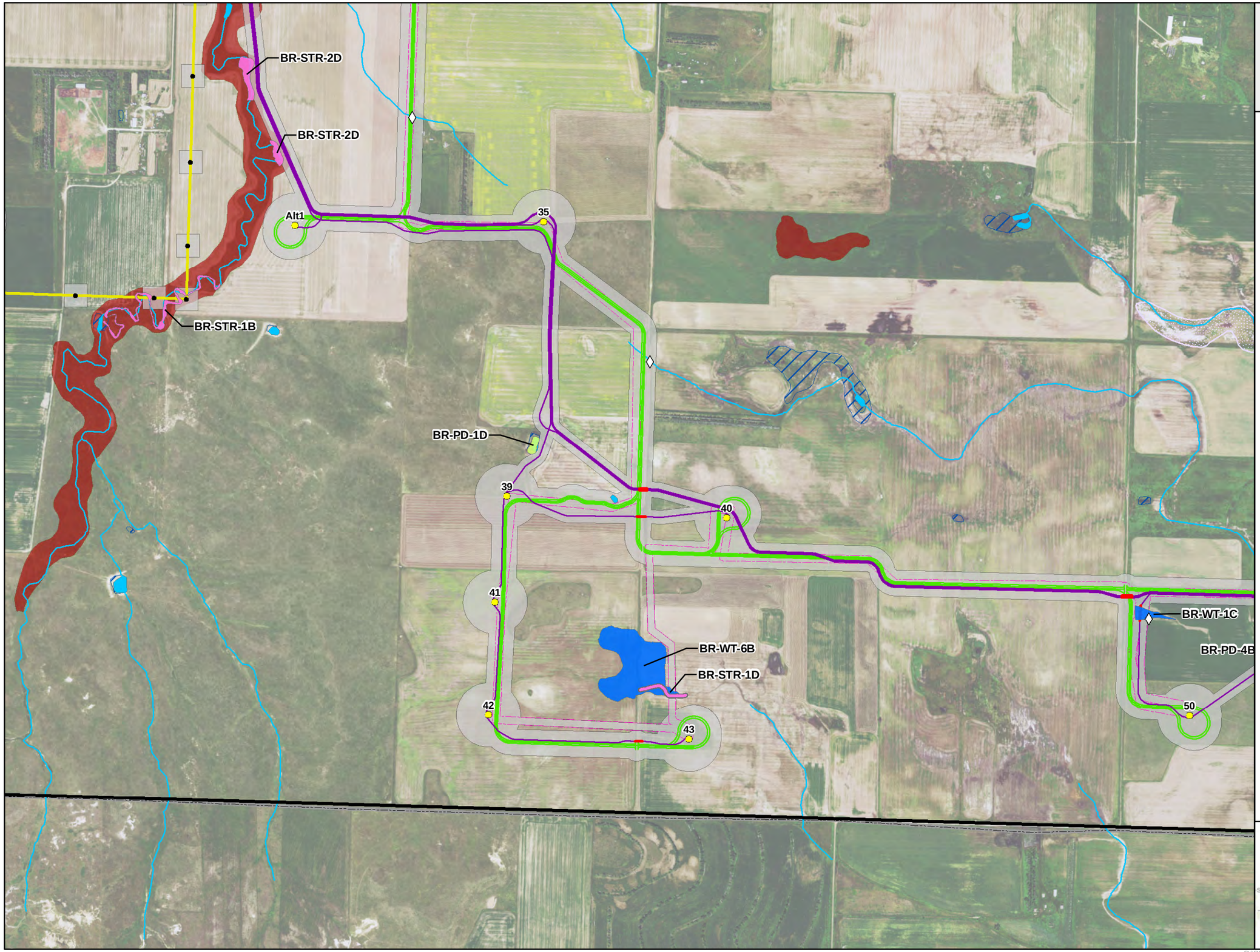
Figure 3
Project Area Detail
Sheet 10 of 18

Brady Wind Energy Center
Stark County, North Dakota



Legend

- Proposed Project Area
- County Boundary
- Major Road

Proposed Project Infrastructure

- Turbines (11/6/15)
- Transmission Poles (1/21/16)
- Met Tower (11/11/15)
- Transmission Line (1/14/16)
- Bore Locations (12/14/15)
- Collection Lines (12/14/15)
- Service Roads (12/1415)
- Laydown Areas (10/27/15)
- O&M Building (8/13/15)
- Substation (8/13/15)
- Switchyard(8/13/15)

Desktop Analysis Data

- Crane Paths (11/20/15)
- Temporary Disturbance Area
- NHD Stream or Waterbody
- NWI Wetland
- Hydric Soils
- 100-year Flood Zone

Field Delineated Features

- Swale
- Upland
- Pond
- Stream
- Swale
- Wetland

N

0 500 1,000 2,000

Feet

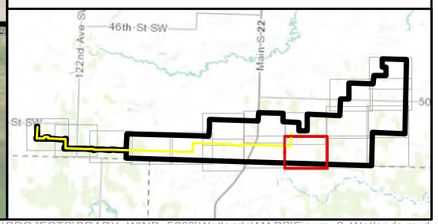


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Figure 3
Project Area Detail
Sheet 11 of 18

Brady Wind Energy Center
Stark County, North Dakota

Legend

- Proposed Project Area
- County Boundary
- Major Road

Proposed Project Infrastructure

- Turbines (11/6/15)
- Transmission Poles (1/21/16)
- Met Tower (11/11/15)
- Transmission Line (1/14/16)
- Bore Locations (12/14/15)
- Collection Lines (12/14/15)
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- NWI Wetland
- Hydric Soils
- 100-year Flood Zone

Field Delineated Features

- Swale
- Upland
- Pond
- Stream
- Swale
- Wetland

N

0 500 1,000 2,000

Feet

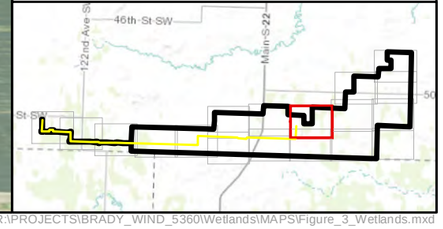

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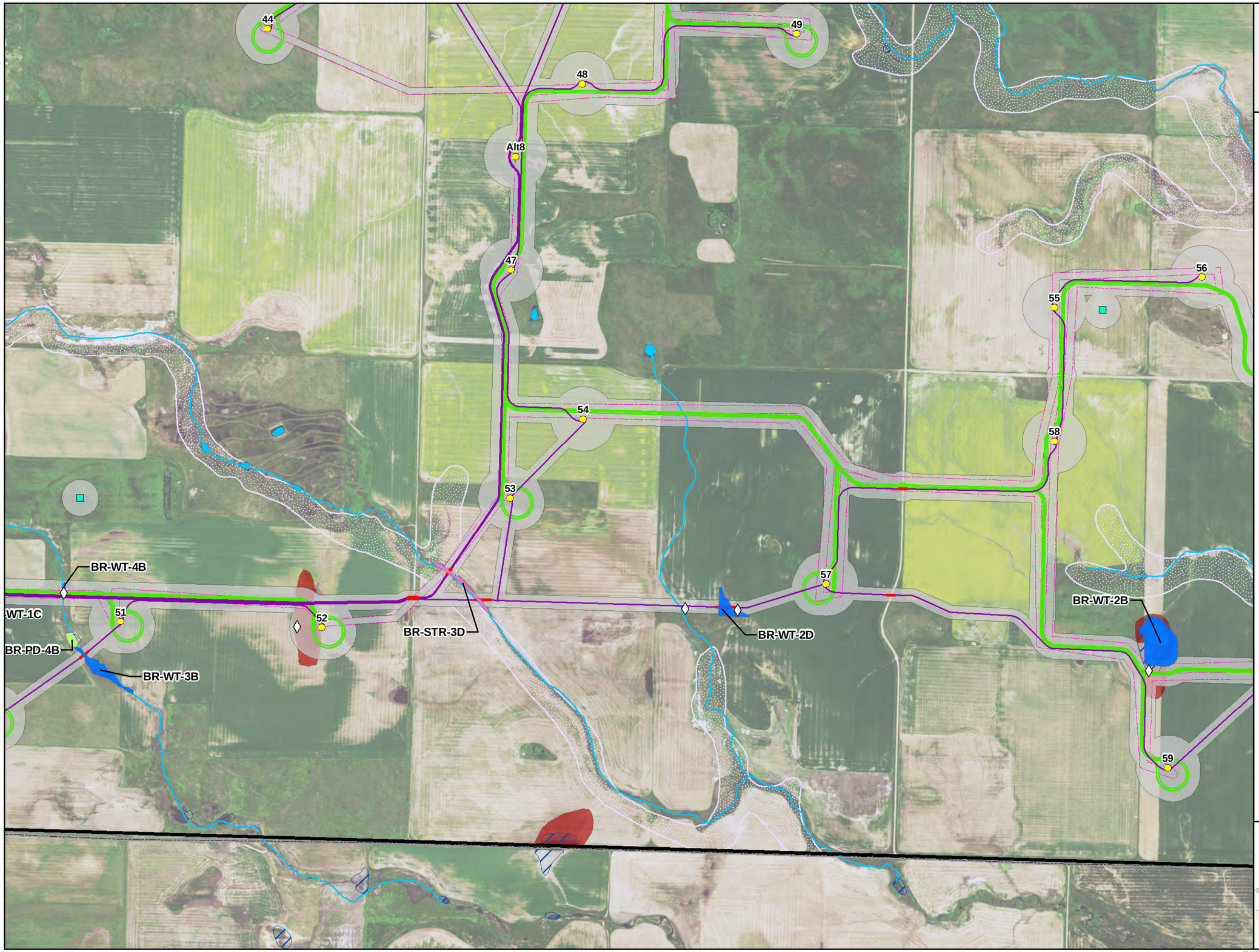
Figure 3
Project Area Detail
Sheet 12 of 18

Brady Wind Energy Center
Stark County, North Dakota



Legend

- Proposed Project Area
- County Boundary
- Major Road

Proposed Project Infrastructure

- Turbines (11/6/15)
- Transmission Poles (1/21/16)
- Met Tower (11/11/15)
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- 100-year Flood Zone

Field Delineated Features

- Swale
- Upland
- Pond
- Stream
- Swale
- Wetland

N

0 500 1,000 2,000

Feet

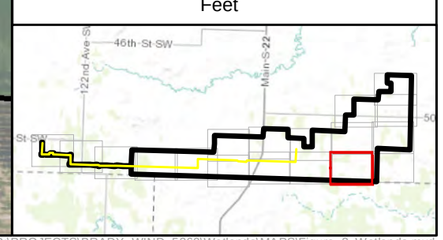

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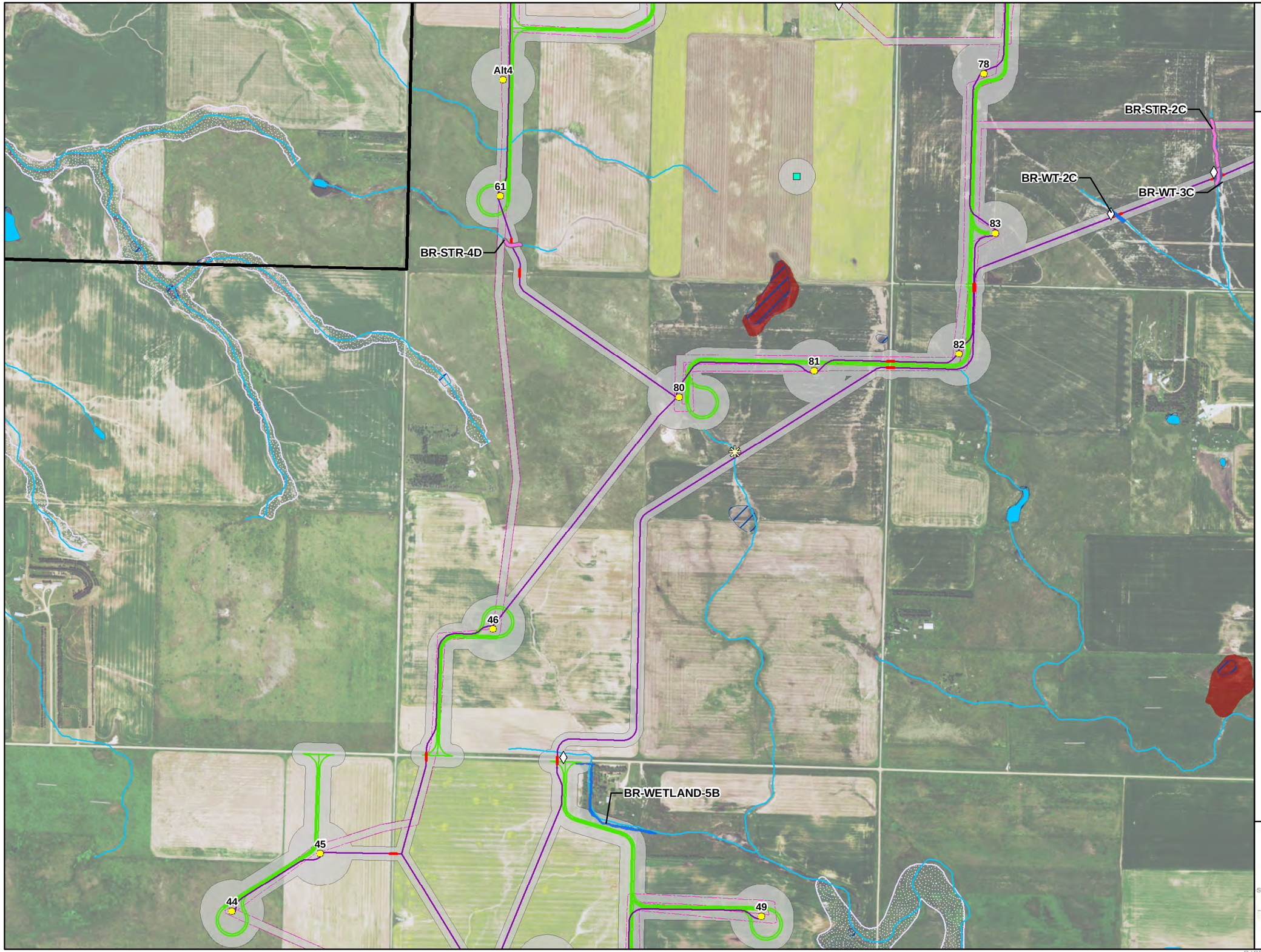
Figure 3
Project Area Detail
Sheet 13 of 18

Brady Wind Energy Center
Stark County, North Dakota



Legend

- Proposed Project Area
- County Boundary
- Major Road

Proposed Project Infrastructure

- Turbines (11/6/15)
- Transmission Poles (1/21/16)
- Met Tower (11/11/15)
- Transmission Line (1/14/16)
- Bore Locations (12/14/15)
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- O&M Building (8/13/15)
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- Switchyard(8/13/15)

Desktop Analysis Data

- Crane Paths (11/20/15)
- Temporary Disturbance Area
- NHD Stream or Waterbody
- NWI Wetland
- Hydric Soils
- 100-year Flood Zone

Field Delineated Features

- Swale
- Upland
- Pond
- Stream
- Swale
- Wetland

N

0 500 1,000 2,000

Feet

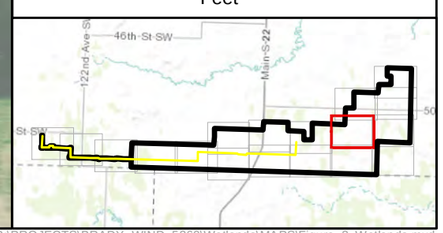

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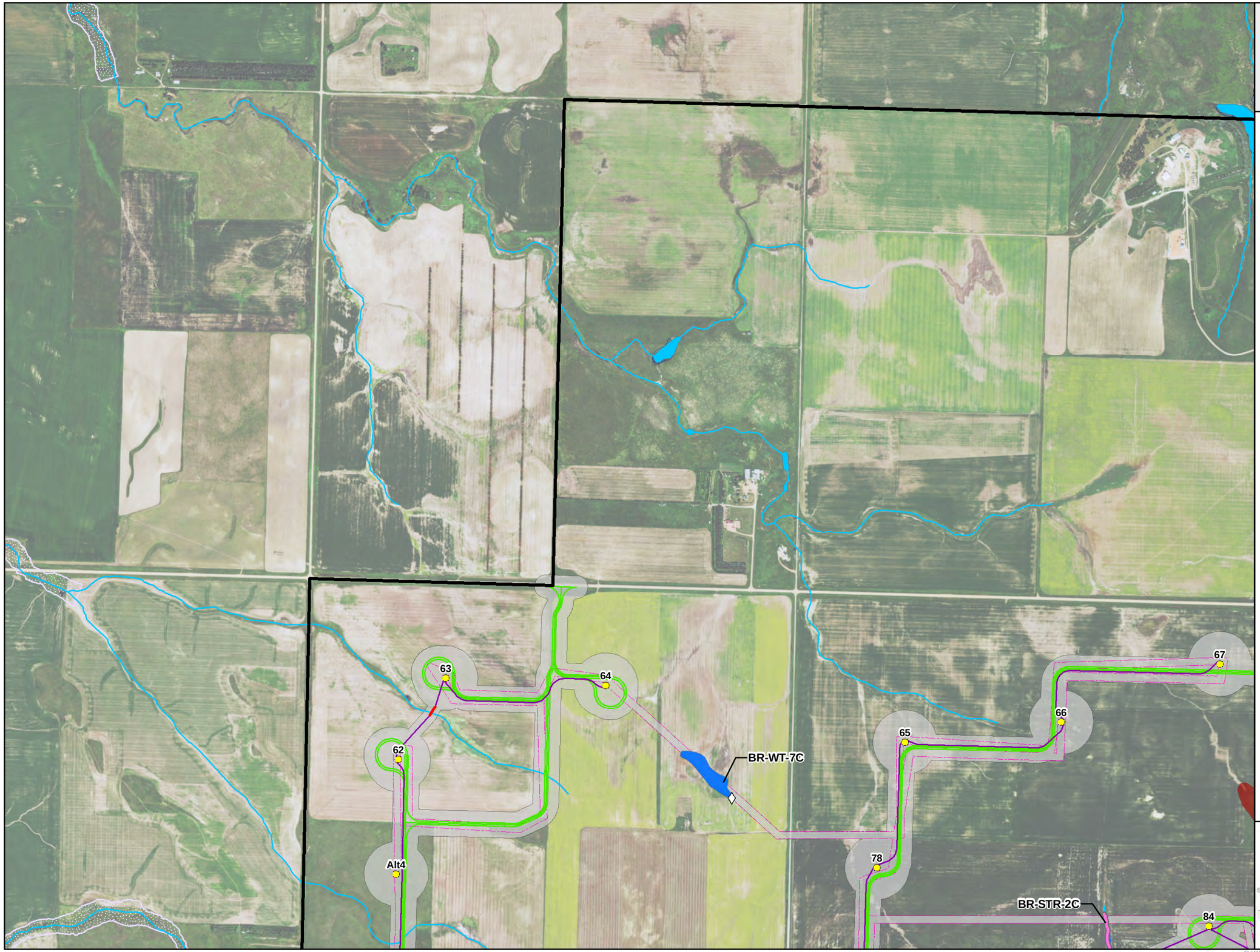
Figure 3
Project Area Detail
Sheet 14 of 18

Brady Wind Energy Center
Stark County, North Dakota



Legend

- Proposed Project Area
- County Boundary
- Major Road

Proposed Project Infrastructure

- Turbines (11/6/15)
- Transmission Poles (1/21/16)
- Met Tower (11/11/15)
- Transmission Line (1/14/16)
- Bore Locations (12/14/15)
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Desktop Analysis Data

- Crane Paths (11/20/15)
- Temporary Disturbance Area
- NHD Stream or Waterbody
- NWI Wetland
- Hydric Soils
- 100-year Flood Zone

Field Delineated Features

- Swale
- Upland
- Pond
- Stream
- Swale
- Wetland

N

0 500 1,000 2,000

Feet

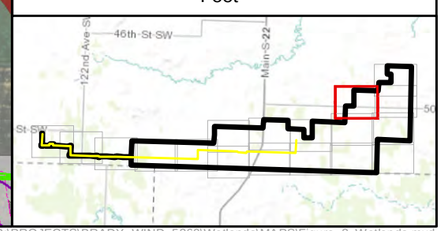

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Figure 3
Project Area Detail
Sheet 15 of 18

Brady Wind Energy Center
Stark County, North Dakota

Legend

- Proposed Project Area
- County Boundary
- Major Road

Proposed Project Infrastructure

- Turbines (11/6/15)
- Transmission Poles (1/21/16)
- Met Tower (11/11/15)
- Transmission Line (1/14/16)
- Bore Locations (12/14/15)
- Collection Lines (12/14/15)
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- Laydown Areas (10/27/15)
- O&M Building (8/13/15)
- Substation (8/13/15)
- Switchyard(8/13/15)

Desktop Analysis Data

- Crane Paths (11/20/15)
- Temporary Disturbance Area
- NHD Stream or Waterbody
- NWI Wetland
- Hydric Soils
- 100-year Flood Zone

Field Delineated Features

- Swale
- Upland
- Pond
- Stream
- Swale
- Wetland

N

0 500 1,000 2,000

Feet

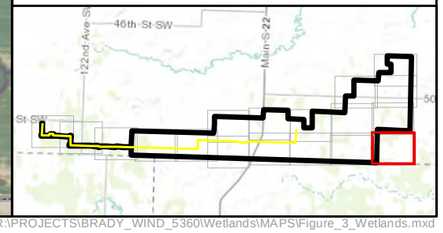

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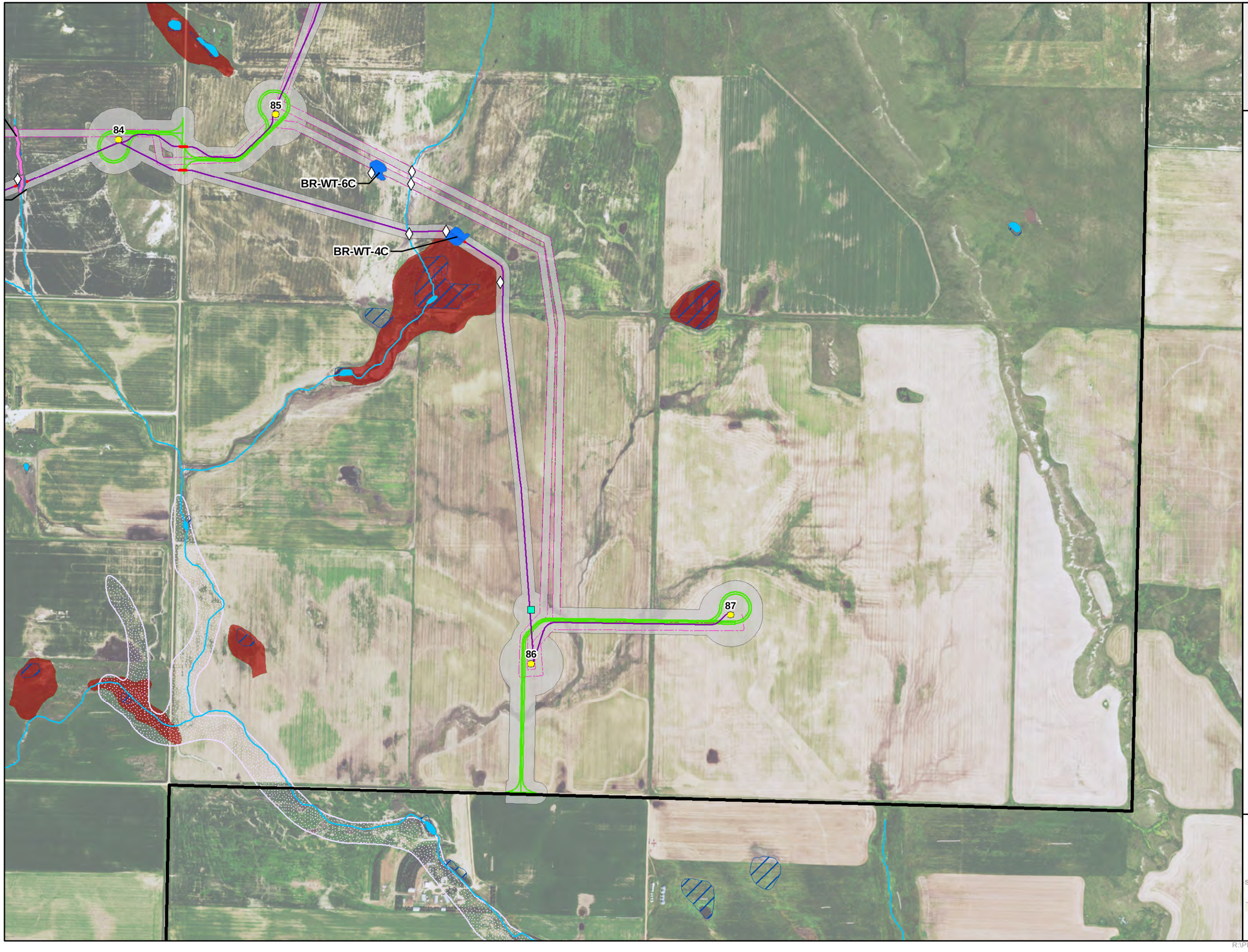
Figure 3
Project Area Detail
Sheet 16 of 18

Brady Wind Energy Center
Stark County, North Dakota



Legend

- Proposed Project Area
- County Boundary
- Major Road

Proposed Project Infrastructure

- Turbines (11/6/15)
- Transmission Poles (1/21/16)
- Met Tower (11/11/15)
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Desktop Analysis Data

- Crane Paths (11/20/15)
- Temporary Disturbance Area
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- NWI Wetland
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- 100-year Flood Zone

Field Delineated Features

- Swale
- Upland
- Pond
- Stream
- Swale
- Wetland

N

0 500 1,000 2,000

Feet

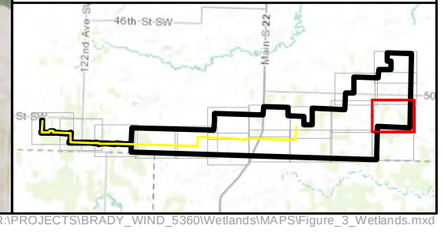

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Figure 3
Project Area Detail
Sheet 17 of 18

Brady Wind Energy Center
Stark County, North Dakota

Jimmy Creek
Alt6
BR-PD-1B
BR-PD-2B
BR-WT-5C
BR-PD-1C
74
73
72
71
70
69
68
67
79
85

Legend

- Proposed Project Area
- County Boundary
- Major Road

Proposed Project Infrastructure

- Turbines (11/6/15)
- Transmission Poles (1/21/16)
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Desktop Analysis Data

- Crane Paths (11/20/15)
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- NWI Wetland
- Hydric Soils
- 100-year Flood Zone

Field Delineated Features

- Swale
- Upland
- Pond
- Stream
- Swale
- Wetland

N

0 500 1,000 2,000

Feet

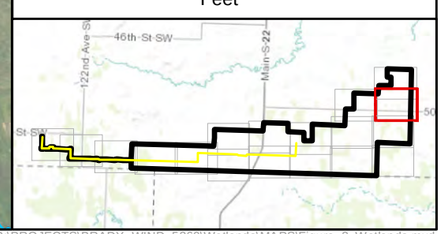

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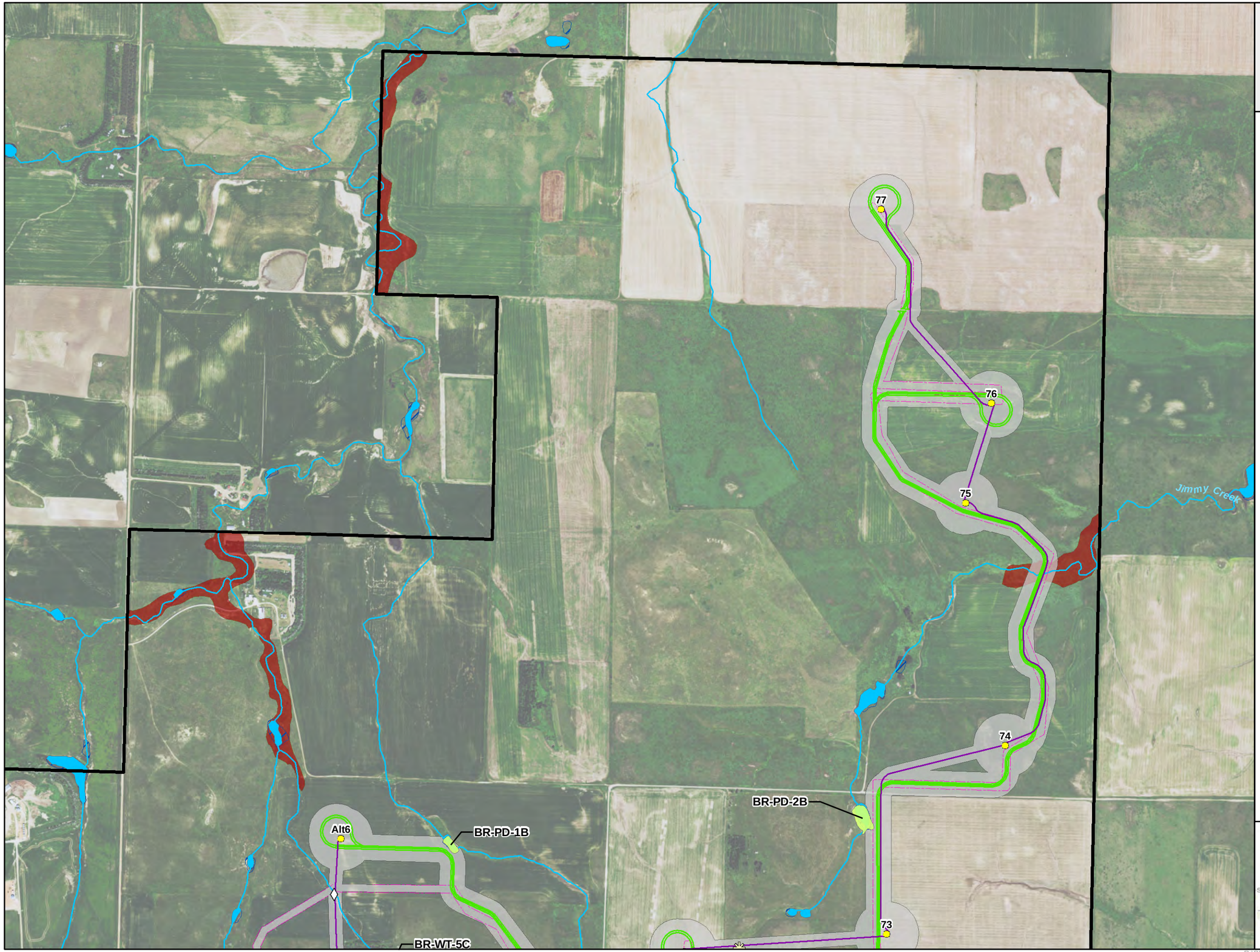
Figure 3
Project Area Detail
Sheet 18 of 18

Brady Wind Energy Center
Stark County, North Dakota



Legend

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- County Boundary
- Major Road

Proposed Project Infrastructure

- Turbines (11/6/15)
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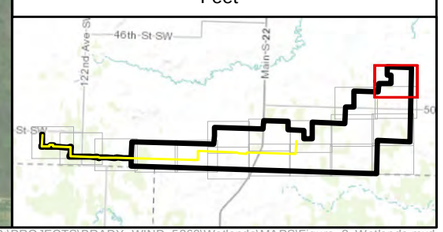
- 100-year Flood Zone

Field Delineated Features

- Swale
- Upland
- Pond
- Stream
- Swale
- Wetland

N

0 500 1,000 2,000
Feet



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Appendix 2:
Wetland Determination Data Forms

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WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Brady Wind City/County: Stark Sampling Date: 11/20/2015

Applicant/Owner: Brady Wind State: ND Sampling Point: BR-UP-1C

Investigator(s): Josh Rodriguez, Cory Sandow Section, Township, Range: Sec 32 T137N, 95W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): F Lat: 46.636273 Long: -102.704818 Datum: WGS 84

Soil Map Unit Name: Amor-Shambo loams, 3 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Plot paired with BR-WT-1C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Triticum aestivum	20	Y	NL
2. Setaria sp.	5	Y	-
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 75

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC−): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: Vegetation was difficult to determine due to recent plowing event.

SOIL

Sampling Point: BR-UP-1C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	5YR 2.5/1	100					si/cl/lm	
14-20	7.5YR 3/2	100					si/cl/lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Brady Wind I		City/County: Dickinson/Stark	Sampling Date: 10/22/15
Applicant/Owner: Nextera		State: North Dakota	Sampling Point: BR-UP-1A
Investigator(s): K Brimacombe, A Bensted		Section, Township, Range: Sections 28 and 33, T137N, R98W	
Landform (hillslope, terrace, etc.): terrace		Local relief (concave, convex, none) none	Slope (%): 1
Subregion (LRR): LRR F	Lat: 46.6469093	Long: -103.0731592	Datum: 84
Soil Map Unit Name:		NWI Classification: none	
Are climatic/hydrologic conditions on the site typical for this time of year?		Yes ☒ No ☐ (if no, explain in Remarks)	
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?		Are "normal circumstances" present?	Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If necessary, explain any answers in Remarks.)			

SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☐ Yes ☒ No	**Is the Sampled Area within a Wetland?**	☐ **Yes** ☒ **No**
Hydric Soil Present?	☐ Yes ☒ No		
Wetland Hydrology Present?	☐ Yes ☒ No		

Remarks: plot

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	**Dominance Test worksheet:**	
1. n/a				Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–):	0 (A)
2.				Total Number of Dominant Species Across All Strata:	1 (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	0 (A/B)
4.				**Prevalence Index worksheet:**	
		= Total Cover		Total % Cover of:	Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species	x 1 =
1. n/a				FACW species	x 2 =
2.				FAC species	x 3 =
3.				FACU species	x 4 =
4.				UPL species	x 5 =
5.				Column Totals: (A)	(B)
		= Total Cover		Prevalence Index = B/A =	
Herb Stratum (Plot size: 5')				**Hydrophytic Vegetation Indicators:**	
1. Bromus inermis	100	yes	UPL	☐ 1. Rapid Test for Hydrophytic Vegetation	
2.				☐ 2. Dominance Test is >50%	
3.				☐ 3. Prevalence Index is ≤3.0[1]	
4.				☐ 4. Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)	
5.				☐ Problematic Hydrophytic Vegetation[1] (Explain)	
6.				[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7.					
8.					
9.					
	100	= Total Cover			
Woody Vine Stratum (Plot size: 30')				**Hydrophytic Vegetation Present?**	☐ **Yes** ☒ **No**
1. n/a					
		= Total Cover			
% Bare Ground in Herb Stratum: 0					

Remarks:

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL Sampling Point: BR-UP-1A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-4	10 Yr 4/2	100	none				clay loam	roots
4-17	10 YR 4/2	100	none				clay loam	

[1] Type: C=Concentration; D=Depletion; RM=Reduced Matrix; CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining; M=Matrix

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted.)				**Indicators for Problematic Hydric Soils [3]:**	
☐	Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐	1 cm Muck (A9) (**LRR I, J**)
☐	Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐	Coast Prairie Redox A16) (**LRR F, G, H**)
☐	Black Histic (A3)	☐	Stripped Matrix (S6)	☐	Dark Surface (S7) (**LRR G**)
☐	Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1)	☐	High Plains Depressions (F16) (**LRR H outside of MLRA 72 and 73**)
☐	Stratified Layers (A5) (**LRR F**)	☐	Loamy Gleyed Matrix (F2)	☐	Reduced Vertic (F18)
☐	1 cm Muck (A9) (**LRR F, G, H**)	☐	Depleted Matrix (F3)	☐	Red Parent Material (TF2)
☐	Depleted Below Dark Surface (A11)	☐	Redox Dark Surface (F6)	☐	Very Shallow Dark Surface (TF12)
☐	Thick Dark Surface (A12)	☐	Depleted Dark Surface (F7)	☐	Other (Explain in Remarks)
☐	Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)	[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
☐	2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)	☐	High Plains Depressions (F16) (**MLRA 72 and 73 of LRR H**)		
☐	5 cm Mucky Peat or Peat (S3) (**LRR F**)				

Restrictive Layer (if present):

Type: hardpan

Depth (inches): 14

Hydric Soil Present? ☐ Yes ☒ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (minimum of two required)	
☐	Surface Water (A1)	☐	Salt Crust (B11)	☐	Surface Soil Cracks (B6)
☐	High Water Table (A2)	☐	Aquatic Invertebrates (B13)	☐	Sparsely Vegetated Concave Surface (B8)
☐	Saturation (A3)	☐	Hydrogen Sulfide Odor (C1)	☐	Drainage Patterns (B10)
☐	Water Marks (B1)	☐	Dry-Season Water Table (C2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
☐	Sediment Deposits (B2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)	☐	Crayfish Burrows (C8)
☐	Drift Deposits (B3)	☐	Presence of Reduced Iron (C4)	☐	Saturation Visible on Aerial Imagery (C9)
☐	Algal Mat or Crust (B4)	☐	Thin Muck Surface (C7)	☐	Geomorphic Position (D2)
☐	Iron Deposits (B5)	☐	Other (Explain in Remarks)	☐	FAC-Neutral Test (D5)
☐	Inundation Visible on Aerial Imagery (B7)			☐	Frost-Heave Hummocks (D7) (**LRR F**)
☐	Water-Stained Leaves (B9)				

Field Observations:			**Water Hydrology Present?**	
Surface Water Present?	☐ Yes ☒ No	Depth (inches):		☐ Yes ☒ No
Water Table Present?	☐ Yes ☒ No	Depth (inches):		
Saturation Present? (includes capillary fringe)	☐ Yes ☒ No	Depth (inches):		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Brady Wind I		City/County: Stark	Sampling Date: 10/22/15
Applicant/Owner: Nextera		State: North Dakota	Sampling Point: BR-UP-1B
Investigator(s): S Yarbrough, R Sparhawk		Section, Township, Range:	
Landform (hillslope, terrace, etc.): roadside ditch		Local relief (concave, convex, none) concave	Slope (%): 5
Subregion (LRR): F	Lat: 46.64597	Long: -102.643	Datum: 84
Soil Map Unit Name: Belfield-Grail Clay Loams, 0-2% slopes		NWI Classification: not mapped	
Are climatic/hydrologic conditions on the site typical for this time of year?		Yes ☒ No ☐ (if no, explain in Remarks)	
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?		Are "normal circumstances" present?	Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If necessary, explain any answers in Remarks.)			

SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☐ Yes ☒ No	**Is the Sampled Area within a Wetland?**	☐ **Yes** ☒ **No**
Hydric Soil Present?	☐ Yes ☒ No		
Wetland Hydrology Present?	☐ Yes ☒ No		

Remarks: Photo 8016 (overview; near the head of a roadside ditch)

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. n/a			
2.			
3.			
4.			
		= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. n/a			
2.			
3.			
4.			
5.			
		= Total Cover	
Herb Stratum (Plot size: 5')			
1. Bromus inermis	50	yes	UPL
2. Poa compressa	50	yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30')			
1. n/a			
		= Total Cover	
% Bare Ground in Herb Stratum: 0			

Dominance Test worksheet:	
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–):	0 (A)
Total Number of Dominant Species Across All Strata:	2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	0 (A/B)

Prevalence Index worksheet:		
Total % Cover of:		Multiply by:
OBL species		x 1 =
FACW species		x 2 =
FAC species		x 3 =
FACU species	50	x 4 = 200
UPL species	50	x 5 = 250
Column Totals:	100 (A)	450 (B)
Prevalence Index = B/A =		450/100 = 4.5

Hydrophytic Vegetation Indicators:

- ☐ 1. Rapid Test for Hydrophytic Vegetation
- ☐ 2. Dominance Test is >50%
- ☐ 3. Prevalence Index is ≤3.0[1]
- ☐ 4. Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present?	☐ **Yes** ☒ **No**

Remarks: No wetland species present

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: BR-UP-1B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-5	10 YR 3/3	100					loam	
5-20	2.5 YR 4/4	100					clay loam	

[1] Type: C=Concentration; D=Depletion; RM=Reduced Matrix; CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining; M=Matrix

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted.)

☐	Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐	1 cm Muck (A9) (**LRR I, J**)
☐	Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐	Coast Prairie Redox A16) (**LRR F, G, H**)
☐	Black Histic (A3)	☐	Stripped Matrix (S6)	☐	Dark Surface (S7) (**LRR G**)
☐	Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1)	☐	High Plains Depressions (F16) (**LRR H outside of MLRA 72 and 73**)
☐	Stratified Layers (A5) (**LRR F**)	☐	Loamy Gleyed Matrix (F2)	☐	Reduced Vertic (F18)
☐	1 cm Muck (A9) (**LRR F, G, H**)	☐	Depleted Matrix (F3)	☐	Red Parent Material (TF2)
☐	Depleted Below Dark Surface (A11)	☐	Redox Dark Surface (F6)	☐	Very Shallow Dark Surface (TF12)
☐	Thick Dark Surface (A12)	☐	Depleted Dark Surface (F7)	☐	Other (Explain in Remarks)
☐	Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)		[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
☐	2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)	☐	High Plains Depressions (F16) (**MLRA 72 and 73 of LRR H**)		
☐	5 cm Mucky Peat or Peat (S3) (**LRR F**)				

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

Remarks: Photo 8015 (closeup from soil plot). No indicators of hydric soil conditions.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

☐	Surface Water (A1)	☐	Salt Crust (B11)	☐	Surface Soil Cracks (B6)
☐	High Water Table (A2)	☐	Aquatic Invertebrates (B13)	☐	Sparsely Vegetated Concave Surface (B8)
☐	Saturation (A3)	☐	Hydrogen Sulfide Odor (C1)	☐	Drainage Patterns (B10)
☐	Water Marks (B1)	☐	Dry-Season Water Table (C2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
☐	Sediment Deposits (B2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)	☐	Crayfish Burrows (C8)
☐	Drift Deposits (B3)	☐	Presence of Reduced Iron (C4)	☐	Saturation Visible on Aerial Imagery (C9)
☐	Algal Mat or Crust (B4)	☐	Thin Muck Surface (C7)	☐	Geomorphic Position (D2)
☐	Iron Deposits (B5)	☐	Other (Explain in Remarks)	☐	FAC-Neutral Test (D5)
☐	Inundation Visible on Aerial Imagery (B7)			☐	Frost-Heave Hummocks (D7) (**LRR F**)
☐	Water-Stained Leaves (B9)				

Field Observations:

Surface Water Present?	☐ Yes ☒ No	Depth (inches):	**Water Hydrology Present?** ☐ Yes ☒ No
Water Table Present?	☐ Yes ☒ No	Depth (inches):	
Saturation Present? (includes capillary fringe)	☐ Yes ☒ No	Depth (inches):	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No primary or secondary indicators for wetland hydrology

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Brady Wind I		City/County: Dickinson/Stark	Sampling Date: 10/23/15
Applicant/Owner: Nextera		State: North Dakota	Sampling Point: BR-UP-2A
Investigator(s): K Brimacombe, A Bensted		Section, Township, Range: Section 34 T137N, R98W	
Landform (hillslope, terrace, etc.): hillslope		Local relief (concave, convex, none) slightly convex	Slope (%): 1
Subregion (LRR): LRR F	Lat: 46.6371195	Long: -103.0260280	Datum: 84
Soil Map Unit Name:		NWI Classification: none	
Are climatic/hydrologic conditions on the site typical for this time of year?		Yes ☒ No ☐ (if no, explain in Remarks)	
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?		Are "normal circumstances" present?	Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If necessary, explain any answers in Remarks.)			

SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☐ Yes ☒ No	**Is the Sampled Area within a Wetland?**	☐ **Yes** ☒ **No**
Hydric Soil Present?	☒ Yes ☐ No		
Wetland Hydrology Present?	☐ Yes ☒ No		

Remarks:

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	**Dominance Test worksheet:**	
1. n/a				Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–):	0 (A)
2.				Total Number of Dominant Species Across All Strata:	1 (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	0 (A/B)
4.				**Prevalence Index worksheet:**	
		= Total Cover		Total % Cover of:	Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species	x 1 =
1. n/a				FACW species	x 2 =
2.				FAC species 5	x 3 = 15
3.				FACU species	x 4 =
4.				UPL species 90	x 5 = 450
5.				Column Totals: 95 (A)	465 (B)
		= Total Cover		Prevalence Index = B/A =	465/95 = 4.9
Herb Stratum (Plot size: 5')				**Hydrophytic Vegetation Indicators:**	
1. Bromus inermis	90	yes	UPL	☐ 1. Rapid Test for Hydrophytic Vegetation	
2. Rumex crispus	5	no	FAC	☐ 2. Dominance Test is >50%	
3. Cirsium spp.	5	no	unk	☐ 3. Prevalence Index is ≤3.0[1]	
4.				☐ 4. Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)	
5.				☐ Problematic Hydrophytic Vegetation[1] (Explain)	
6.				[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7.					
8.					
9.					
	100	= Total Cover			
Woody Vine Stratum (Plot size: 30')				**Hydrophytic Vegetation Present?**	☐ **Yes** ☒ **No**
1. n/a					
		= Total Cover			
% Bare Ground in Herb Stratum: 0					

Remarks:

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: BR-UP-2A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-5	10 YR 2/1	100		0			silty clay	lots of roots
5-13	10 YR 3/2	95	10 YR 6/8	5	C	M/PL	loam	

[1] Type: C=Concentration; D=Depletion; RM=Reduced Matrix; CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining; M=Matrix

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted.)				**Indicators for Problematic Hydric Soils [3]:**	
☐	Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐	1 cm Muck (A9) (**LRR I, J**)
☐	Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐	Coast Prairie Redox A16) (**LRR F, G, H**)
☐	Black Histic (A3)	☐	Stripped Matrix (S6)	☐	Dark Surface (S7) (**LRR G**)
☐	Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1)	☐	High Plains Depressions (F16) (**LRR H outside of MLRA 72 and 73**)
☐	Stratified Layers (A5) (**LRR F**)	☐	Loamy Gleyed Matrix (F2)	☐	Reduced Vertic (F18)
☐	1 cm Muck (A9) (**LRR F, G, H**)	☐	Depleted Matrix (F3)	☐	Red Parent Material (TF2)
☐	Depleted Below Dark Surface (A11)	☒	Redox Dark Surface (F6)	☐	Very Shallow Dark Surface (TF12)
☐	Thick Dark Surface (A12)	☐	Depleted Dark Surface (F7)	☐	Other (Explain in Remarks)
☐	Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)	[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
☐	2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)	☐	High Plains Depressions (F16) (**MLRA 72 and 73 of LRR H**)		
☐	5 cm Mucky Peat or Peat (S3) (**LRR F**)				

Restrictive Layer (if present):		
Type:	**Hydric Soil Present?**	☒ Yes ☐ No
Depth (inches):		

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (minimum of two required)	
☐	Surface Water (A1)	☐	Salt Crust (B11)	☐	Surface Soil Cracks (B6)
☐	High Water Table (A2)	☐	Aquatic Invertebrates (B13)	☐	Sparsely Vegetated Concave Surface (B8)
☐	Saturation (A3)	☐	Hydrogen Sulfide Odor (C1)	☐	Drainage Patterns (B10)
☐	Water Marks (B1)	☐	Dry-Season Water Table (C2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
☐	Sediment Deposits (B2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)	☐	Crayfish Burrows (C8)
☐	Drift Deposits (B3)	☐	Presence of Reduced Iron (C4)	☐	Saturation Visible on Aerial Imagery (C9)
☐	Algal Mat or Crust (B4)	☐	Thin Muck Surface (C7)	☐	Geomorphic Position (D2)
☐	Iron Deposits (B5)	☐	Other (Explain in Remarks)	☐	FAC-Neutral Test (D5)
☐	Inundation Visible on Aerial Imagery (B7)			☐	Frost-Heave Hummocks (D7) (**LRR F**)
☐	Water-Stained Leaves (B9)				

Field Observations:				
Surface Water Present?	☐ Yes ☒ No	Depth (inches):	**Water Hydrology Present?**	☐ Yes ☒ No
Water Table Present?	☐ Yes ☒ No	Depth (inches):		
Saturation Present? (includes capillary fringe)	☐ Yes ☒ No	Depth (inches):		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Brady Wind I		City/County: Dickinson/Stark	Sampling Date: 10/23/15
Applicant/Owner: Nextera		State: North Dakota	Sampling Point: BR-UP-3A
Investigator(s): K Brimacombe, A Bensted		Section, Township, Range: Section 34 T137N R98W	
Landform (hillslope, terrace, etc.): hillslope		Local relief (concave, convex, none) convex	Slope (%): 1
Subregion (LRR): LRR F	Lat: 46.6426012	Long: -103.0363328	Datum: 84
Soil Map Unit Name:		NWI Classification: none	
Are climatic/hydrologic conditions on the site typical for this time of year?		Yes ☒ No ☐ (if no, explain in Remarks)	
Are Vegetation ☒, Soil ☐, or Hydrology ☐ significantly disturbed?		Are "normal circumstances" present?	Yes ☐ No ☒
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If necessary, explain any answers in Remarks.)			

SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☐ Yes ☒ No	**Is the Sampled Area within a Wetland?**	☐ **Yes** ☒ **No**
Hydric Soil Present?	☐ Yes ☒ No		
Wetland Hydrology Present?	☐ Yes ☒ No		

Remarks: Upland sample plot located in wheat field.

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	**Dominance Test worksheet:**	
1. n/a				Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–):	0 (A)
2.				Total Number of Dominant Species Across All Strata:	1 (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	0 (A/B)
4.				**Prevalence Index worksheet:**	
		= Total Cover		Total % Cover of:	Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species	x 1 =
1. n/a				FACW species	x 2 =
2.				FAC species	x 3 =
3.				FACU species	x 4 =
4.				UPL species	x 5 =
5.				Column Totals: (A)	(B)
		= Total Cover		Prevalence Index = B/A =	
Herb Stratum (Plot size: 5')				**Hydrophytic Vegetation Indicators:**	
1. Triticum aestivum	65	yes	NI	☐ 1. Rapid Test for Hydrophytic Vegetation	
2. Bassia scoparia	10		FACU	☐ 2. Dominance Test is >50%	
3. Amaranthus sp.	5			☐ 3. Prevalence Index is ≤3.0[1]	
4. Setaria sp.	5			☐ 4. Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)	
5.				☐ Problematic Hydrophytic Vegetation[1] (Explain)	
6.				[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7.					
8.					
9.					
	85	= Total Cover			
Woody Vine Stratum (Plot size: 30')				**Hydrophytic Vegetation Present?**	☐ **Yes** ☒ **No**
1. n/a					
		= Total Cover			
% Bare Ground in Herb Stratum: 15					
Remarks:					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: BR-UP-3A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-6	10 YR 3/2	100					silty clay loam	
6-13	5 Y 4/1	100					clay	

[1] Type: C=Concentration; D=Depletion; RM=Reduced Matrix; CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining; M=Matrix

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted.)

☐	Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐	1 cm Muck (A9) (**LRR I, J**)
☐	Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐	Coast Prairie Redox A16) (**LRR F, G, H**)
☐	Black Histic (A3)	☐	Stripped Matrix (S6)	☐	Dark Surface (S7) (**LRR G**)
☐	Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1)	☐	High Plains Depressions (F16) (**LRR H outside of MLRA 72 and 73**)
☐	Stratified Layers (A5) (**LRR F**)	☐	Loamy Gleyed Matrix (F2)	☐	Reduced Vertic (F18)
☐	1 cm Muck (A9) (**LRR F, G, H**)	☐	Depleted Matrix (F3)	☐	Red Parent Material (TF2)
☐	Depleted Below Dark Surface (A11)	☐	Redox Dark Surface (F6)	☐	Very Shallow Dark Surface (TF12)
☐	Thick Dark Surface (A12)	☐	Depleted Dark Surface (F7)	☐	Other (Explain in Remarks)
☐	Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)		[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
☐	2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)	☐	High Plains Depressions (F16) (**MLRA 72 and 73 of LRR H**)		
☐	5 cm Mucky Peat or Peat (S3) (**LRR F**)				

Restrictive Layer (if present):

Type: compacted clay

Depth (inches): 13

Hydric Soil Present? ☐ Yes ☒ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (minimum of two required)	
☐	Surface Water (A1)	☐	Salt Crust (B11)	☐	Surface Soil Cracks (B6)
☐	High Water Table (A2)	☐	Aquatic Invertebrates (B13)	☐	Sparsely Vegetated Concave Surface (B8)
☐	Saturation (A3)	☐	Hydrogen Sulfide Odor (C1)	☐	Drainage Patterns (B10)
☐	Water Marks (B1)	☐	Dry-Season Water Table (C2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
☐	Sediment Deposits (B2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)	☐	Crayfish Burrows (C8)
☐	Drift Deposits (B3)	☐	Presence of Reduced Iron (C4)	☐	Saturation Visible on Aerial Imagery (C9)
☐	Algal Mat or Crust (B4)	☐	Thin Muck Surface (C7)	☐	Geomorphic Position (D2)
☐	Iron Deposits (B5)	☐	Other (Explain in Remarks)	☐	FAC-Neutral Test (D5)
☐	Inundation Visible on Aerial Imagery (B7)			☐	Frost-Heave Hummocks (D7) (**LRR F**)
☐	Water-Stained Leaves (B9)				

Field Observations:

Surface Water Present?	☐ Yes ☒ No	Depth (inches):	**Water Hydrology Present?** ☐ Yes ☒ No
Water Table Present?	☐ Yes ☒ No	Depth (inches):	
Saturation Present? (includes capillary fringe)	☐ Yes ☒ No	Depth (inches):	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Brady Wind I		City/County: Stark	Sampling Date: 10/24/15
Applicant/Owner: Nextera		State: North Dakota	Sampling Point: BR-UP-3B
Investigator(s): S Yarbrough, R Sparhawk		Section, Township, Range:	
Landform (hillslope, terrace, etc.): toe of slope		Local relief (concave, convex, none) concave	Slope (%): 3
Subregion (LRR): F	Lat: 46.6348685	Long: -102.6977547	Datum: 84
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year?		Yes ☒ No ☐ (if no, explain in Remarks)	
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?		Are "normal circumstances" present?	Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If necessary, explain any answers in Remarks.)			

SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☐ Yes ☒ No	**Is the Sampled Area within a Wetland?**	☐ **Yes** ☒ **No**
Hydric Soil Present?	☐ Yes ☒ No		
Wetland Hydrology Present?	☐ Yes ☒ No		

Remarks: Active pasture. Photos 8045 (S) and 8046 (W)

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	**Dominance Test worksheet:**	
1. n/a				Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–):	0 (A)
2.				Total Number of Dominant Species Across All Strata:	1 (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	0 (A/B)
4.				**Prevalence Index worksheet:**	
		= Total Cover		Total % Cover of:	Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species	x 1 =
1. n/a				FACW species	x 2 =
2.				FAC species 5	x 3 = 15
3.				FACU species 95	x 4 = 380
4.				UPL species	x 5 =
5.				Column Totals: 100 (A)	395 (B)
		= Total Cover		Prevalence Index = B/A =	395/100 = 3.95
Herb Stratum (Plot size: 5')				**Hydrophytic Vegetation Indicators:**	
1. Pascopyrum smithii	95	yes	FACU	☐ 1. Rapid Test for Hydrophytic Vegetation	
2. Rumex crispus	<5	no	FAC	☐ 2. Dominance Test is >50%	
3.				☐ 3. Prevalence Index is ≤3.0[1]	
4.				☐ 4. Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)	
5.				☐ Problematic Hydrophytic Vegetation[1] (Explain)	
6.				[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7.					
8.					
9.					
		= Total Cover			
Woody Vine Stratum (Plot size: 30')				**Hydrophytic Vegetation Present?**	☐ **Yes** ☒ **No**
1. n/a					
		= Total Cover			
% Bare Ground in Herb Stratum:					

Remarks: Upland pasture. Active grazing. Photo 8044.

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: BR-UP-3B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-14	10 YR 3/1						silt loam	
14-20	10 YR 4/2						silt loam	

[1] Type: C=Concentration; D=Depletion; RM=Reduced Matrix; CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining; M=Matrix

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted.)				**Indicators for Problematic Hydric Soils [3]:**	
☐	Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐	1 cm Muck (A9) (**LRR I, J**)
☐	Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐	Coast Prairie Redox A16) (**LRR F, G, H**)
☐	Black Histic (A3)	☐	Stripped Matrix (S6)	☐	Dark Surface (S7) (**LRR G**)
☐	Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1)	☐	High Plains Depressions (F16) (**LRR H outside of MLRA 72 and 73**)
☐	Stratified Layers (A5) (**LRR F**)	☐	Loamy Gleyed Matrix (F2)	☐	Reduced Vertic (F18)
☐	1 cm Muck (A9) (**LRR F, G, H**)	☐	Depleted Matrix (F3)	☐	Red Parent Material (TF2)
☐	Depleted Below Dark Surface (A11)	☐	Redox Dark Surface (F6)	☐	Very Shallow Dark Surface (TF12)
☐	Thick Dark Surface (A12)	☐	Depleted Dark Surface (F7)	☐	Other (Explain in Remarks)
☐	Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)	[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
☐	2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)	☐	High Plains Depressions (F16) (**MLRA 72 and 73 of LRR H**)		
☐	5 cm Mucky Peat or Peat (S3) (**LRR F**)				

Restrictive Layer (if present):		
Type:	**Hydric Soil Present?**	☐ Yes ☒ No
Depth (inches):		

Remarks: There are no indicators of hydric soil at this location. Photo 8047 (closeup).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (minimum of two required)	
☐	Surface Water (A1)	☐	Salt Crust (B11)	☐	Surface Soil Cracks (B6)
☐	High Water Table (A2)	☐	Aquatic Invertebrates (B13)	☐	Sparsely Vegetated Concave Surface (B8)
☐	Saturation (A3)	☐	Hydrogen Sulfide Odor (C1)	☐	Drainage Patterns (B10)
☐	Water Marks (B1)	☐	Dry-Season Water Table (C2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
☐	Sediment Deposits (B2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)	☐	Crayfish Burrows (C8)
☐	Drift Deposits (B3)	☐	Presence of Reduced Iron (C4)	☐	Saturation Visible on Aerial Imagery (C9)
☐	Algal Mat or Crust (B4)	☐	Thin Muck Surface (C7)	☐	Geomorphic Position (D2)
☐	Iron Deposits (B5)	☐	Other (Explain in Remarks)	☐	FAC-Neutral Test (D5)
☐	Inundation Visible on Aerial Imagery (B7)			☐	Frost-Heave Hummocks (D7) (**LRR F**)
☐	Water-Stained Leaves (B9)				

Field Observations:				
Surface Water Present?	☐ Yes ☒ No	Depth (inches):	**Water Hydrology Present?**	☐ Yes ☒ No
Water Table Present?	☐ Yes ☒ No	Depth (inches):		
Saturation Present? (includes capillary fringe)	☐ Yes ☒ No	Depth (inches):		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photography is available for this site.

Remarks: There are no positive primary or secondary indicators of wetland hydrology.

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Brady Wind I		City/County: Dickinson/Stark	Sampling Date: 10/24/15
Applicant/Owner: Nextera		State: North Dakota	Sampling Point: BR-UP-4A
Investigator(s): K Brimacombe, A Bensted		Section, Township, Range: Section 36 T137N R98W	
Landform (hillslope, terrace, etc.): hillslope		Local relief (concave, convex, none) convex	Slope (%): 1
Subregion (LRR): LRR F	Lat: 46.6364326	Long: -102.9977443	Datum: 84
Soil Map Unit Name:		NWI Classification: none	
Are climatic/hydrologic conditions on the site typical for this time of year?		Yes ☒ No ☐ (if no, explain in Remarks)	
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?		Are "normal circumstances" present?	Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If necessary, explain any answers in Remarks.)			

SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☐ Yes ☒ No	**Is the Sampled Area within a Wetland?**	☐ **Yes** ☒ **No**
Hydric Soil Present?	☐ Yes ☒ No		
Wetland Hydrology Present?	☐ Yes ☒ No		

Remarks:

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	**Dominance Test worksheet:**	
1. n/a				Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–):	0 (A)
2.				Total Number of Dominant Species Across All Strata:	1 (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	0 (A/B)
4.				**Prevalence Index worksheet:**	
		= Total Cover		Total % Cover of:	Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species	x 1 =
1. n/a				FACW species	x 2 =
2.				FAC species	x 3 =
3.				FACU species	x 4 =
4.				UPL species	x 5 =
5.				Column Totals: (A)	(B)
		= Total Cover		Prevalence Index = B/A =	
Herb Stratum (Plot size: 5')				**Hydrophytic Vegetation Indicators:**	
1. Glycine max (soybean)	85	yes	NI	☐ 1. Rapid Test for Hydrophytic Vegetation	
2. unidentifable grass	10	no		☐ 2. Dominance Test is >50%	
3.				☐ 3. Prevalence Index is ≤3.0[1]	
4.				☐ 4. Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)	
5.				☐ Problematic Hydrophytic Vegetation[1] (Explain)	
6.				[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7.					
8.					
9.					
	95	= Total Cover			
Woody Vine Stratum (Plot size: 30')				**Hydrophytic Vegetation Present?**	☐ **Yes** ☒ **No**
1. n/a					
		= Total Cover			
% Bare Ground in Herb Stratum: 5					

Remarks: Plot located in plowed soybean field.

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: BR-UP-4A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-7	7.5 YR 3/2	100					clay loam	
7-13	10 YR 4/4	60					clay loam	
7-13	10 YR 3/1	40						
13-16	2.5 Y 5/4	95					sandy clay loam	
13-16	10 YR 3/2	5						

[1] Type: C=Concentration; D=Depletion; RM=Reduced Matrix; CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining; M=Matrix

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted.)				**Indicators for Problematic Hydric Soils [3]:**	
☐	Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐	1 cm Muck (A9) (**LRR I, J**)
☐	Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐	Coast Prairie Redox A16) (**LRR F, G, H**)
☐	Black Histic (A3)	☐	Stripped Matrix (S6)	☐	Dark Surface (S7) (**LRR G**)
☐	Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1)	☐	High Plains Depressions (F16) (**LRR H outside of MLRA 72 and 73**)
☐	Stratified Layers (A5) (**LRR F**)	☐	Loamy Gleyed Matrix (F2)	☐	Reduced Vertic (F18)
☐	1 cm Muck (A9) (**LRR F, G, H**)	☐	Depleted Matrix (F3)	☐	Red Parent Material (TF2)
☐	Depleted Below Dark Surface (A11)	☐	Redox Dark Surface (F6)	☐	Very Shallow Dark Surface (TF12)
☐	Thick Dark Surface (A12)	☐	Depleted Dark Surface (F7)	☐	Other (Explain in Remarks)
☐	Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)	[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
☐	2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)	☐	High Plains Depressions (F16) (**MLRA 72 and 73 of LRR H**)		
☐	5 cm Mucky Peat or Peat (S3) (**LRR F**)				

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (minimum of two required)	
☐	Surface Water (A1)	☐	Salt Crust (B11)	☐	Surface Soil Cracks (B6)
☐	High Water Table (A2)	☐	Aquatic Invertebrates (B13)	☐	Sparsely Vegetated Concave Surface (B8)
☐	Saturation (A3)	☐	Hydrogen Sulfide Odor (C1)	☐	Drainage Patterns (B10)
☐	Water Marks (B1)	☐	Dry-Season Water Table (C2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
☐	Sediment Deposits (B2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)	☐	Crayfish Burrows (C8)
☐	Drift Deposits (B3)	☐	Presence of Reduced Iron (C4)	☐	Saturation Visible on Aerial Imagery (C9)
☐	Algal Mat or Crust (B4)	☐	Thin Muck Surface (C7)	☐	Geomorphic Position (D2)
☐	Iron Deposits (B5)	☐	Other (Explain in Remarks)	☐	FAC-Neutral Test (D5)
☐	Inundation Visible on Aerial Imagery (B7)			☐	Frost-Heave Hummocks (D7) (**LRR F**)
☐	Water-Stained Leaves (B9)				

Field Observations:			**Water Hydrology Present?**	
Surface Water Present?	☐ Yes ☒ No	Depth (inches):		☐ Yes ☒ No
Water Table Present?	☐ Yes ☒ No	Depth (inches):		
Saturation Present? (includes capillary fringe)	☐ Yes ☒ No	Depth (inches):		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Brady Wind I		City/County: Dickinson/Stark	Sampling Date: 10/24/15
Applicant/Owner: Nextera		State: North Dakota	Sampling Point: BR-UP-5A
Investigator(s): K Brimacombe, A Bensted		Section, Township, Range: Section 27 T137N R98W	
Landform (hillslope, terrace, etc.): hillslope		Local relief (concave, convex, none) convex	Slope (%): 1-2
Subregion (LRR): LRR F	Lat: 46.6445252	Long: -103.0399967	Datum: 84
Soil Map Unit Name:		NWI Classification: none	
Are climatic/hydrologic conditions on the site typical for this time of year?		Yes ☒ No ☐ (if no, explain in Remarks)	
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?		Are "normal circumstances" present?	Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If necessary, explain any answers in Remarks.)			

SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☐ Yes ☒ No	**Is the Sampled Area within a Wetland?**	☐ **Yes** ☒ **No**
Hydric Soil Present?	☐ Yes ☒ No		
Wetland Hydrology Present?	☐ Yes ☒ No		

Remarks:

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	**Dominance Test worksheet:**	
1. n/a				Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–):	0 (A)
2.				Total Number of Dominant Species Across All Strata:	1 (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	0 (A/B)
4.				**Prevalence Index worksheet:**	
		= Total Cover		Total % Cover of:	Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species	x 1 =
1. n/a				FACW species	x 2 =
2.				FAC species	x 3 =
3.				FACU species	x 4 =
4.				UPL species	x 5 =
5.				Column Totals: (A)	(B)
		= Total Cover		Prevalence Index = B/A =	
Herb Stratum (Plot size: 5')				**Hydrophytic Vegetation Indicators:**	
1. Bromus inermis	98	yes	UPL	☐ 1. Rapid Test for Hydrophytic Vegetation	
2. Cirsium spp	2		unk	☐ 2. Dominance Test is >50%	
3.				☐ 3. Prevalence Index is ≤3.0[1]	
4.				☐ 4. Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)	
5.				☐ Problematic Hydrophytic Vegetation[1] (Explain)	
6.				[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7.					
8.					
9.					
	98	= Total Cover			
Woody Vine Stratum (Plot size: 30')				**Hydrophytic Vegetation Present?**	☐ **Yes** ☒ **No**
1. n/a					
		= Total Cover			
% Bare Ground in Herb Stratum: 0					

Remarks:

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: BR-UP-5A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-10	10 YR 2/2	100	none				clay	calcium concentrates
10-16	10 YR 4/2	100	none				clay	

[1] Type: C=Concentration; D=Depletion; RM=Reduced Matrix; CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining; M=Matrix

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted.)				**Indicators for Problematic Hydric Soils [3]:**	
☐	Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐	1 cm Muck (A9) (**LRR I, J**)
☐	Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐	Coast Prairie Redox A16) (**LRR F, G, H**)
☐	Black Histic (A3)	☐	Stripped Matrix (S6)	☐	Dark Surface (S7) (**LRR G**)
☐	Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1)	☐	High Plains Depressions (F16) (**LRR H outside of MLRA 72 and 73**)
☐	Stratified Layers (A5) (**LRR F**)	☐	Loamy Gleyed Matrix (F2)	☐	Reduced Vertic (F18)
☐	1 cm Muck (A9) (**LRR F, G, H**)	☐	Depleted Matrix (F3)	☐	Red Parent Material (TF2)
☐	Depleted Below Dark Surface (A11)	☐	Redox Dark Surface (F6)	☐	Very Shallow Dark Surface (TF12)
☐	Thick Dark Surface (A12)	☐	Depleted Dark Surface (F7)	☐	Other (Explain in Remarks)
☐	Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)	[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
☐	2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)	☐	High Plains Depressions (F16) (**MLRA 72 and 73 of LRR H**)		
☐	5 cm Mucky Peat or Peat (S3) (**LRR F**)				

Restrictive Layer (if present):		
Type:	**Hydric Soil Present?**	☐ Yes ☒ No
Depth (inches):		

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (minimum of two required)	
☐	Surface Water (A1)	☐	Salt Crust (B11)	☐	Surface Soil Cracks (B6)
☐	High Water Table (A2)	☐	Aquatic Invertebrates (B13)	☐	Sparsely Vegetated Concave Surface (B8)
☐	Saturation (A3)	☐	Hydrogen Sulfide Odor (C1)	☐	Drainage Patterns (B10)
☐	Water Marks (B1)	☐	Dry-Season Water Table (C2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
☐	Sediment Deposits (B2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)	☐	Crayfish Burrows (C8)
☐	Drift Deposits (B3)	☐	Presence of Reduced Iron (C4)	☐	Saturation Visible on Aerial Imagery (C9)
☐	Algal Mat or Crust (B4)	☐	Thin Muck Surface (C7)	☐	Geomorphic Position (D2)
☐	Iron Deposits (B5)	☐	Other (Explain in Remarks)	☐	FAC-Neutral Test (D5)
☐	Inundation Visible on Aerial Imagery (B7)			☐	Frost-Heave Hummocks (D7) (**LRR F**)
☐	Water-Stained Leaves (B9)				

Field Observations:				
Surface Water Present?	☐ Yes ☒ No	Depth (inches):	**Water Hydrology Present?**	☐ Yes ☒ No
Water Table Present?	☐ Yes ☒ No	Depth (inches):		
Saturation Present? (includes capillary fringe)	☐ Yes ☒ No	Depth (inches):		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Brady Wind I		City/County: Stark	Sampling Date: 10/24/15
Applicant/Owner: Nextera		State: North Dakota	Sampling Point: BR-UP-5B
Investigator(s): S Yarbrough, R Sparhawk		Section, Township, Range:	
Landform (hillslope, terrace, etc.): terrace		Local relief (concave, convex, none) none	Slope (%): 0
Subregion (LRR): F	Lat: 46.65729	Long: -102.677	Datum: 84
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year?		Yes ☒ No ☐ (if no, explain in Remarks)	
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?		Are "normal circumstances" present?	Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If necessary, explain any answers in Remarks.)			

SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☐ Yes ☒ No	**Is the Sampled Area within a Wetland?**	☐ **Yes** ☒ **No**
Hydric Soil Present?	☐ Yes ☒ No		
Wetland Hydrology Present?	☐ Yes ☒ No		

Remarks: Photo 8060

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	**Dominance Test worksheet:**	
1. Populus deltoides	15	yes	FAC	Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–):	2 (A)
2. Picea pungens	5	yes	FAC	Total Number of Dominant Species Across All Strata:	4 (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	50 (A/B)
4.				**Prevalence Index worksheet:**	
	20	= Total Cover		Total % Cover of:	Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species	x 1 =
1. n/a				FACW species	x 2 =
2.				FAC species 20	x 3 = 60
3.				FACU species 20	x 4 = 80
4.				UPL species 80	x 5 = 400
5.				Column Totals: 120 (A)	540 (B)
		= Total Cover		Prevalence Index = B/A =	540/120 = 4.5
Herb Stratum (Plot size: 5')				**Hydrophytic Vegetation Indicators:**	
1. Bromus inermis	80	yes	UPL	☐ 1. Rapid Test for Hydrophytic Vegetation	
2. Phleum pratense	20	yes	FACU	☐ 2. Dominance Test is >50%	
3.				☐ 3. Prevalence Index is ≤3.0[1]	
4.				☐ 4. Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)	
5.				☐ Problematic Hydrophytic Vegetation[1] (Explain)	
6.				[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7.					
8.					
9.					
	100	= Total Cover			
Woody Vine Stratum (Plot size: 30')				**Hydrophytic Vegetation Present?**	☐ **Yes** ☒ **No (clearly fails Prevalence test)**
1. n/a					
		= Total Cover			
% Bare Ground in Herb Stratum: 0					
Remarks:					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: BR-UP-5B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-5	10 YR 2/2	100					silt loam	
5-11	10 YR 3/2	100					silt loam	
11-20	10 YR 3/2	98	10 YR 4/6	2	C	M	clay	

[1] Type: C=Concentration; D=Depletion; RM=Reduced Matrix; CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining; M=Matrix

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted.)				**Indicators for Problematic Hydric Soils [3]:**	
☐	Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐	1 cm Muck (A9) (**LRR I, J**)
☐	Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐	Coast Prairie Redox A16) (**LRR F, G, H**)
☐	Black Histic (A3)	☐	Stripped Matrix (S6)	☐	Dark Surface (S7) (**LRR G**)
☐	Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1)	☐	High Plains Depressions (F16) (**LRR H outside of MLRA 72 and 73**)
☐	Stratified Layers (A5) (**LRR F**)	☐	Loamy Gleyed Matrix (F2)	☐	Reduced Vertic (F18)
☐	1 cm Muck (A9) (**LRR F, G, H**)	☐	Depleted Matrix (F3)	☐	Red Parent Material (TF2)
☐	Depleted Below Dark Surface (A11)	☐	Redox Dark Surface (F6)	☐	Very Shallow Dark Surface (TF12)
☐	Thick Dark Surface (A12)	☐	Depleted Dark Surface (F7)	☐	Other (Explain in Remarks)
☐	Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)	[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
☐	2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)	☐	High Plains Depressions (F16) (**MLRA 72 and 73 of LRR H**)		
☐	5 cm Mucky Peat or Peat (S3) (**LRR F**)				

Restrictive Layer (if present):		
Type:	**Hydric Soil Present?**	☐ Yes ☒ No
Depth (inches):		

Remarks: Photo 8061. Minor redox at 11" bgs. Does not meet hydric indicator F6.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (minimum of two required)	
☐	Surface Water (A1)	☐	Salt Crust (B11)	☐	Surface Soil Cracks (B6)
☐	High Water Table (A2)	☐	Aquatic Invertebrates (B13)	☐	Sparsely Vegetated Concave Surface (B8)
☐	Saturation (A3)	☐	Hydrogen Sulfide Odor (C1)	☐	Drainage Patterns (B10)
☐	Water Marks (B1)	☐	Dry-Season Water Table (C2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
☐	Sediment Deposits (B2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)	☐	Crayfish Burrows (C8)
☐	Drift Deposits (B3)	☐	Presence of Reduced Iron (C4)	☐	Saturation Visible on Aerial Imagery (C9)
☐	Algal Mat or Crust (B4)	☐	Thin Muck Surface (C7)	☐	Geomorphic Position (D2)
☐	Iron Deposits (B5)	☐	Other (Explain in Remarks)	☐	FAC-Neutral Test (D5)
☐	Inundation Visible on Aerial Imagery (B7)			☐	Frost-Heave Hummocks (D7) (**LRR F**)
☐	Water-Stained Leaves (B9)				

Field Observations:				
Surface Water Present?	☐ Yes ☒ No	Depth (inches):	**Water Hydrology Present?**	☐ Yes ☒ No
Water Table Present?	☐ Yes ☒ No	Depth (inches):		
Saturation Present? (includes capillary fringe)	☐ Yes ☒ No	Depth (inches):		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No primary or secondary indicators of wetland hydrology.

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Brady Wind I		City/County: Dickinson/Stark	Sampling Date: 10/25/15
Applicant/Owner: Nextera		State: North Dakota	Sampling Point: BR-UP-6A
Investigator(s): K Brimacombe, A Bensted		Section, Township, Range: Section 32 T137N R97W	
Landform (hillslope, terrace, etc.): hillslope		Local relief (concave, convex, none) convex	Slope (%): 1
Subregion (LRR): LRR F	Lat: 46.6352536	Long: -102.9425760	Datum: 84
Soil Map Unit Name:		NWI Classification: none	
Are climatic/hydrologic conditions on the site typical for this time of year?		Yes ☒ No ☐ (if no, explain in Remarks)	
Are Vegetation ☒, Soil ☐, or Hydrology ☐ significantly disturbed?		Are "normal circumstances" present?	Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If necessary, explain any answers in Remarks.)			

SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☐ Yes ☒ No	**Is the Sampled Area within a Wetland?**	☐ **Yes** ☒ **No**
Hydric Soil Present?	☐ Yes ☒ No		
Wetland Hydrology Present?	☐ Yes ☒ No		

Remarks: Wetland located in plowed canola/wheat field.

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	**Dominance Test worksheet:**	
1. n/a				Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–):	0 (A)
2.				Total Number of Dominant Species Across All Strata:	2 (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	0 (A/B)
4.				**Prevalence Index worksheet:**	
		= Total Cover		Total % Cover of:	Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species	x 1 =
1. n/a				FACW species	x 2 =
2.				FAC species	x 3 =
3.				FACU species	x 4 =
4.				UPL species	x 5 =
5.				Column Totals: (A)	(B)
		= Total Cover		Prevalence Index = B/A =	
Herb Stratum (Plot size: 5')				**Hydrophytic Vegetation Indicators:**	
1. Triticum aestivum	60	yes	NI	☐ 1. Rapid Test for Hydrophytic Vegetation	
2. Canola (Brassica sp.)	40	yes	NI	☐ 2. Dominance Test is >50%	
3.				☐ 3. Prevalence Index is ≤3.0[1]	
4.				☐ 4. Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)	
5.				☐ Problematic Hydrophytic Vegetation[1] (Explain)	
6.				[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7.					
8.					
9.					
	100	= Total Cover			
Woody Vine Stratum (Plot size: 30')				**Hydrophytic Vegetation Present?**	☐ **Yes** ☒ **No**
1. n/a					
		= Total Cover			
% Bare Ground in Herb Stratum: 0					

Remarks: plowed canola/wheat field

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: BR-UP-6A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-16	10 YR 3/2	100	none				sandy loam	

[1] Type: C=Concentration; D=Depletion; RM=Reduced Matrix; CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining; M=Matrix

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted.)				**Indicators for Problematic Hydric Soils [3]:**	
☐	Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐	1 cm Muck (A9) (**LRR I, J**)
☐	Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐	Coast Prairie Redox A16) (**LRR F, G, H**)
☐	Black Histic (A3)	☐	Stripped Matrix (S6)	☐	Dark Surface (S7) (**LRR G**)
☐	Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1)	☐	High Plains Depressions (F16) (**LRR H outside of MLRA 72 and 73**)
☐	Stratified Layers (A5) (**LRR F**)	☐	Loamy Gleyed Matrix (F2)	☐	Reduced Vertic (F18)
☐	1 cm Muck (A9) (**LRR F, G, H**)	☐	Depleted Matrix (F3)	☐	Red Parent Material (TF2)
☐	Depleted Below Dark Surface (A11)	☐	Redox Dark Surface (F6)	☐	Very Shallow Dark Surface (TF12)
☐	Thick Dark Surface (A12)	☐	Depleted Dark Surface (F7)	☐	Other (Explain in Remarks)
☐	Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)	[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
☐	2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)	☐	High Plains Depressions (F16) (**MLRA 72 and 73 of LRR H**)		
☐	5 cm Mucky Peat or Peat (S3) (**LRR F**)				

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (minimum of two required)	
☐	Surface Water (A1)	☐	Salt Crust (B11)	☐	Surface Soil Cracks (B6)
☐	High Water Table (A2)	☐	Aquatic Invertebrates (B13)	☐	Sparsely Vegetated Concave Surface (B8)
☐	Saturation (A3)	☐	Hydrogen Sulfide Odor (C1)	☐	Drainage Patterns (B10)
☐	Water Marks (B1)	☐	Dry-Season Water Table (C2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
☐	Sediment Deposits (B2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)	☐	Crayfish Burrows (C8)
☐	Drift Deposits (B3)	☐	Presence of Reduced Iron (C4)	☐	Saturation Visible on Aerial Imagery (C9)
☐	Algal Mat or Crust (B4)	☐	Thin Muck Surface (C7)	☐	Geomorphic Position (D2)
☐	Iron Deposits (B5)	☐	Other (Explain in Remarks)	☐	FAC-Neutral Test (D5)
☐	Inundation Visible on Aerial Imagery (B7)			☐	Frost-Heave Hummocks (D7) (**LRR F**)
☐	Water-Stained Leaves (B9)				

Field Observations:			**Water Hydrology Present?**	
Surface Water Present?	☐ Yes ☒ No	Depth (inches):		☐ Yes ☒ No
Water Table Present?	☐ Yes ☒ No	Depth (inches):		
Saturation Present? (includes capillary fringe)	☐ Yes ☒ No	Depth (inches):		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Brady Wind I		City/County: Stark	Sampling Date: 10/24/15
Applicant/Owner: Nextera		State: North Dakota	Sampling Point: BR-UP-6B
Investigator(s): S Yarbrough, R Sparhawk		Section, Township, Range:	
Landform (hillslope, terrace, etc.): hillslope		Local relief (concave, convex, none) none	Slope (%): 5-10
Subregion (LRR): F	Lat: 46.63344	Long: -102.727	Datum: 84
Soil Map Unit Name: Belfield - Daglum		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year?		Yes ☒ No ☐ (if no, explain in Remarks)	
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?		Are "normal circumstances" present?	Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If necessary, explain any answers in Remarks.)			

SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☐ Yes ☒ No	**Is the Sampled Area within a Wetland?**	☐ **Yes** ☒ **No**
Hydric Soil Present?	☐ Yes ☒ No		
Wetland Hydrology Present?	☐ Yes ☒ No		

Remarks:

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	**Dominance Test worksheet:**	
1. n/a				Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–):	0 (A)
2.				Total Number of Dominant Species Across All Strata:	2 (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	0 (A/B)
4.				**Prevalence Index worksheet:**	
		= Total Cover		Total % Cover of:	Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species	x 1 =
1. n/a				FACW species	x 2 =
2.				FAC species	x 3 =
3.				FACU species 50	x 4 = 200
4.				UPL species 50	x 5 = 250
5.				Column Totals: 100 (A)	450 (B)
		= Total Cover		Prevalence Index = B/A =	450/100 = 4.5
Herb Stratum (Plot size: 5')				**Hydrophytic Vegetation Indicators:**	
1. Poa compressa	50	yes	FACU	☐ 1. Rapid Test for Hydrophytic Vegetation	
2. Bromus inermis	50	yes	UPL	☐ 2. Dominance Test is >50%	
3.				☐ 3. Prevalence Index is ≤3.0[1]	
4.				☐ 4. Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)	
5.				☐ Problematic Hydrophytic Vegetation[1] (Explain)	
6.				[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7.					
8.					
9.					
	100	= Total Cover			
Woody Vine Stratum (Plot size: 30')				**Hydrophytic Vegetation Present?**	☐ **Yes** ☒ **No**
1. n/a					
		= Total Cover			
% Bare Ground in Herb Stratum: 0					

Remarks: No wetland plants present. Photo 8065 (closeup of smooth brome).

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: BR-UP-6B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-20	10 YR 3/2	100					silt loam	

[1] Type: C=Concentration; D=Depletion; RM=Reduced Matrix; CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining; M=Matrix

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted.)				**Indicators for Problematic Hydric Soils [3]:**	
☐	Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐	1 cm Muck (A9) (**LRR I, J**)
☐	Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐	Coast Prairie Redox A16) (**LRR F, G, H**)
☐	Black Histic (A3)	☐	Stripped Matrix (S6)	☐	Dark Surface (S7) (**LRR G**)
☐	Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1)	☐	High Plains Depressions (F16) (**LRR H outside of MLRA 72 and 73**)
☐	Stratified Layers (A5) (**LRR F**)	☐	Loamy Gleyed Matrix (F2)	☐	Reduced Vertic (F18)
☐	1 cm Muck (A9) (**LRR F, G, H**)	☐	Depleted Matrix (F3)	☐	Red Parent Material (TF2)
☐	Depleted Below Dark Surface (A11)	☐	Redox Dark Surface (F6)	☐	Very Shallow Dark Surface (TF12)
☐	Thick Dark Surface (A12)	☐	Depleted Dark Surface (F7)	☐	Other (Explain in Remarks)
☐	Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)	[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
☐	2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)	☐	High Plains Depressions (F16) (**MLRA 72 and 73 of LRR H**)		
☐	5 cm Mucky Peat or Peat (S3) (**LRR F**)				

Restrictive Layer (if present):		
Type:	**Hydric Soil Present?**	☐ Yes ☒ No
Depth (inches):		

Remarks: Photo 8066 (closeup). No indicators for hydric soil conditions.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (minimum of two required)	
☐	Surface Water (A1)	☐	Salt Crust (B11)	☐	Surface Soil Cracks (B6)
☐	High Water Table (A2)	☐	Aquatic Invertebrates (B13)	☐	Sparsely Vegetated Concave Surface (B8)
☐	Saturation (A3)	☐	Hydrogen Sulfide Odor (C1)	☐	Drainage Patterns (B10)
☐	Water Marks (B1)	☐	Dry-Season Water Table (C2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
☐	Sediment Deposits (B2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)	☐	Crayfish Burrows (C8)
☐	Drift Deposits (B3)	☐	Presence of Reduced Iron (C4)	☐	Saturation Visible on Aerial Imagery (C9)
☐	Algal Mat or Crust (B4)	☐	Thin Muck Surface (C7)	☐	Geomorphic Position (D2)
☐	Iron Deposits (B5)	☐	Other (Explain in Remarks)	☐	FAC-Neutral Test (D5)
☐	Inundation Visible on Aerial Imagery (B7)			☐	Frost-Heave Hummocks (D7) (**LRR F**)
☐	Water-Stained Leaves (B9)				

Field Observations:				
Surface Water Present?	☐ Yes ☒ No	Depth (inches):	**Water Hydrology Present?**	☐ Yes ☒ No
Water Table Present?	☐ Yes ☒ No	Depth (inches):		
Saturation Present? (includes capillary fringe)	☐ Yes ☒ No	Depth (inches):		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No primary or secondary indicators of wetland hydrology.

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Brady Wind I		City/County: Dickinson/Stark	Sampling Date: 10/25/15
Applicant/Owner: Nextera		State: North Dakota	Sampling Point: BR-UP-7A
Investigator(s): K Brimacombe, A Bensted		Section, Township, Range: Sections 33 and 34 T137N R97W	
Landform (hillslope, terrace, etc.): hillslope		Local relief (concave, convex, none) convex	Slope (%): 1
Subregion (LRR): LRR F	Lat: 46.6374630	Long: -102.9150220	Datum: 84
Soil Map Unit Name:		NWI Classification: none	
Are climatic/hydrologic conditions on the site typical for this time of year?		Yes ☒ No ☐ (if no, explain in Remarks)	
Are Vegetation ☒, Soil ☐, or Hydrology ☐ significantly disturbed?		Are "normal circumstances" present?	Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If necessary, explain any answers in Remarks.)			

SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☐ Yes ☒ No	**Is the Sampled Area within a Wetland?**	☐ **Yes** ☒ **No**
Hydric Soil Present?	☐ Yes ☒ No		
Wetland Hydrology Present?	☐ Yes ☒ No		

Remarks: Vegetation disturbed - plowed soybean field.

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	**Dominance Test worksheet:**	
1. n/a				Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–):	0 (A)
2.				Total Number of Dominant Species Across All Strata:	1 (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	0 (A/B)
4.				**Prevalence Index worksheet:**	
		= Total Cover		Total % Cover of:	Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species	x 1 =
1. n/a				FACW species	x 2 =
2.				FAC species	x 3 =
3.				FACU species	x 4 =
4.				UPL species	x 5 =
5.				Column Totals: (A)	(B)
		= Total Cover		Prevalence Index = B/A =	
Herb Stratum (Plot size: 5')				**Hydrophytic Vegetation Indicators:**	
1. Soybean (Glycine max)	80	yes	NI	☐ 1. Rapid Test for Hydrophytic Vegetation	
2. Cirsium arvense	15	no	FACU	☐ 2. Dominance Test is >50%	
3. Setaria spp.	2	no	varies	☐ 3. Prevalence Index is ≤3.0[1]	
4.				☐ 4. Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)	
5.				☐ Problematic Hydrophytic Vegetation[1] (Explain)	
6.				[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7.					
8.					
9.					
	97	= Total Cover			
Woody Vine Stratum (Plot size: 30')				**Hydrophytic Vegetation Present?**	☐ **Yes** ☒ **No**
1. n/a					
		= Total Cover			
% Bare Ground in Herb Stratum: 3					
Remarks:					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: BR-UP-7A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-12	10 YR 3/1	100					sandy clay loam	

[1] Type: C=Concentration; D=Depletion; RM=Reduced Matrix; CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining; M=Matrix

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted.)				**Indicators for Problematic Hydric Soils [3]:**	
☐	Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐	1 cm Muck (A9) (**LRR I, J**)
☐	Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐	Coast Prairie Redox A16) (**LRR F, G, H**)
☐	Black Histic (A3)	☐	Stripped Matrix (S6)	☐	Dark Surface (S7) (**LRR G**)
☐	Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1)	☐	High Plains Depressions (F16) (**LRR H outside of MLRA 72 and 73**)
☐	Stratified Layers (A5) (**LRR F**)	☐	Loamy Gleyed Matrix (F2)	☐	Reduced Vertic (F18)
☐	1 cm Muck (A9) (**LRR F, G, H**)	☐	Depleted Matrix (F3)	☐	Red Parent Material (TF2)
☐	Depleted Below Dark Surface (A11)	☐	Redox Dark Surface (F6)	☐	Very Shallow Dark Surface (TF12)
☐	Thick Dark Surface (A12)	☐	Depleted Dark Surface (F7)	☐	Other (Explain in Remarks)
☐	Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)	[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
☐	2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)	☐	High Plains Depressions (F16) (**MLRA 72 and 73 of LRR H**)		
☐	5 cm Mucky Peat or Peat (S3) (**LRR F**)				

Restrictive Layer (if present):

Type: hardpan

Depth (inches): 12

Hydric Soil Present? ☐ Yes ☒ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (minimum of two required)	
☐	Surface Water (A1)	☐	Salt Crust (B11)	☐	Surface Soil Cracks (B6)
☐	High Water Table (A2)	☐	Aquatic Invertebrates (B13)	☐	Sparsely Vegetated Concave Surface (B8)
☐	Saturation (A3)	☐	Hydrogen Sulfide Odor (C1)	☐	Drainage Patterns (B10)
☐	Water Marks (B1)	☐	Dry-Season Water Table (C2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
☐	Sediment Deposits (B2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)	☐	Crayfish Burrows (C8)
☐	Drift Deposits (B3)	☐	Presence of Reduced Iron (C4)	☐	Saturation Visible on Aerial Imagery (C9)
☐	Algal Mat or Crust (B4)	☐	Thin Muck Surface (C7)	☐	Geomorphic Position (D2)
☐	Iron Deposits (B5)	☐	Other (Explain in Remarks)	☐	FAC-Neutral Test (D5)
☐	Inundation Visible on Aerial Imagery (B7)			☐	Frost-Heave Hummocks (D7) (**LRR F**)
☐	Water-Stained Leaves (B9)				

Field Observations:			**Water Hydrology Present?**	
Surface Water Present?	☐ Yes ☒ No	Depth (inches):		☐ Yes ☒ No
Water Table Present?	☐ Yes ☒ No	Depth (inches):		
Saturation Present? (includes capillary fringe)	☐ Yes ☒ No	Depth (inches):		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Brady Wind I		City/County: Stark	Sampling Date: 10/25/15
Applicant/Owner: Nextera		State: North Dakota	Sampling Point: BR-UP-7B
Investigator(s): S Yarbrough, R Sparhawk		Section, Township, Range:	
Landform (hillslope, terrace, etc.): lowland, pasture		Local relief (concave, convex, none) none	Slope (%): 2
Subregion (LRR): F	Lat: 46.66209	Long: -102.78	Datum: 84
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year?		Yes ☒ No ☐ (if no, explain in Remarks)	
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?		Are "normal circumstances" present?	Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If necessary, explain any answers in Remarks.)			

SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☒ Yes ☐ No	**Is the Sampled Area within a Wetland?**	☐ **Yes** ☒ **No**
Hydric Soil Present?	☐ Yes ☒ No		
Wetland Hydrology Present?	☐ Yes ☒ No		

Remarks: Adjacent to Kettle pond. It is in a pasture. Relatively flat topography.

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	**Dominance Test worksheet:**	
1. n/a				Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–):	1 (A)
2.				Total Number of Dominant Species Across All Strata:	2 (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	50 (A/B)
4.				**Prevalence Index worksheet:**	
		= Total Cover		Total % Cover of:	Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species	x 1 =
1. n/a				FACW species 50	x 2 = 100
2.				FAC species	x 3 =
3.				FACU species 50	x 4 = 200
4.				UPL species	x 5 =
5.				Column Totals: 100 (A)	300 (B)
		= Total Cover		Prevalence Index = B/A =	300/100 = 3.0
Herb Stratum (Plot size: 5')				**Hydrophytic Vegetation Indicators:**	
1. Poa pratensis	50	yes	FACU	☐ 1. Rapid Test for Hydrophytic Vegetation	
2. Hordeum jubatum	50	yes	FACW	☐ 2. Dominance Test is >50%	
3.				☐ 3. Prevalence Index is ≤3.0[1]	
4.				☐ 4. Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)	
5.				☐ Problematic Hydrophytic Vegetation[1] (Explain)	
6.				[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7.					
8.					
9.					
	100	= Total Cover			
Woody Vine Stratum (Plot size: 30')				**Hydrophytic Vegetation Present?**	☒ **Yes** ☐ **No**
1. n/a					
		= Total Cover			
% Bare Ground in Herb Stratum: 0					

Remarks: Vegetation is marginal with a 50/50 split between FACU and FACW. We fail with soils and hydrology.

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: BR-UP-7B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-20	10 YR 3/1	100					clay loam	

[1] Type: C=Concentration; D=Depletion; RM=Reduced Matrix; CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining; M=Matrix

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted.)				**Indicators for Problematic Hydric Soils [3]:**	
☐	Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐	1 cm Muck (A9) (**LRR I, J**)
☐	Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐	Coast Prairie Redox A16) (**LRR F, G, H**)
☐	Black Histic (A3)	☐	Stripped Matrix (S6)	☐	Dark Surface (S7) (**LRR G**)
☐	Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1)	☐	High Plains Depressions (F16) (**LRR H outside of MLRA 72 and 73**)
☐	Stratified Layers (A5) (**LRR F**)	☐	Loamy Gleyed Matrix (F2)	☐	Reduced Vertic (F18)
☐	1 cm Muck (A9) (**LRR F, G, H**)	☐	Depleted Matrix (F3)	☐	Red Parent Material (TF2)
☐	Depleted Below Dark Surface (A11)	☐	Redox Dark Surface (F6)	☐	Very Shallow Dark Surface (TF12)
☐	Thick Dark Surface (A12)	☐	Depleted Dark Surface (F7)	☐	Other (Explain in Remarks)
☐	Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)	[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
☐	2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)	☐	High Plains Depressions (F16) (**MLRA 72 and 73 of LRR H**)		
☐	5 cm Mucky Peat or Peat (S3) (**LRR F**)				

Restrictive Layer (if present):		
Type:	**Hydric Soil Present?**	☐ Yes ☒ No
Depth (inches):		

Remarks: Calcic concentrations in a dark formation. No positive indication for hydric soils.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (minimum of two required)	
☐	Surface Water (A1)	☐	Salt Crust (B11)	☐	Surface Soil Cracks (B6)
☐	High Water Table (A2)	☐	Aquatic Invertebrates (B13)	☐	Sparsely Vegetated Concave Surface (B8)
☐	Saturation (A3)	☐	Hydrogen Sulfide Odor (C1)	☐	Drainage Patterns (B10)
☐	Water Marks (B1)	☐	Dry-Season Water Table (C2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
☐	Sediment Deposits (B2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)	☐	Crayfish Burrows (C8)
☐	Drift Deposits (B3)	☐	Presence of Reduced Iron (C4)	☐	Saturation Visible on Aerial Imagery (C9)
☐	Algal Mat or Crust (B4)	☐	Thin Muck Surface (C7)	☐	Geomorphic Position (D2)
☐	Iron Deposits (B5)	☐	Other (Explain in Remarks)	☐	FAC-Neutral Test (D5)
☐	Inundation Visible on Aerial Imagery (B7)			☐	Frost-Heave Hummocks (D7) (**LRR F**)
☐	Water-Stained Leaves (B9)				

Field Observations:				
Surface Water Present?	☐ Yes ☒ No	Depth (inches):	**Water Hydrology Present?**	☐ Yes ☒ No
Water Table Present?	☐ Yes ☒ No	Depth (inches):		
Saturation Present? (includes capillary fringe)	☐ Yes ☒ No	Depth (inches):		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No primary or secondary indicators of wetland hydrology.

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Brady Wind I		City/County: Stark	Sampling Date: 10/25/15
Applicant/Owner: Nextera		State: North Dakota	Sampling Point: BR-UP-8B
Investigator(s): S Yarbrough, R Sparhawk		Section, Township, Range:	
Landform (hillslope, terrace, etc.): shoulder of slope		Local relief (concave, convex, none) convex	Slope (%): 5
Subregion (LRR): F	Lat: 46.64554	Long: -102.855	Datum: 84
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year?		Yes ☒ No ☐ (if no, explain in Remarks)	
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?		Are "normal circumstances" present?	Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If necessary, explain any answers in Remarks.)			

SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☐ Yes ☒ No	**Is the Sampled Area within a Wetland?**	☐ **Yes** ☒ **No**
Hydric Soil Present?	☐ Yes ☒ No		
Wetland Hydrology Present?	☐ Yes ☒ No		

Remarks:

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	**Dominance Test worksheet:**	
1. n/a				Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–):	0 (A)
2.				Total Number of Dominant Species Across All Strata:	4 (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	0 (A/B)
4.				**Prevalence Index worksheet:**	
		= Total Cover		Total % Cover of:	Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species	x 1 =
1. Artemisia frigida	5	yes		FACW species	x 2 =
2.				FAC species	x 3 =
3.				FACU species	x 4 =
4.				UPL species	x 5 =
5.				Column Totals: (A)	(B)
		= Total Cover		Prevalence Index = B/A =	
Herb Stratum (Plot size: 5')				**Hydrophytic Vegetation Indicators:**	
1. Bromus inermis	50	yes	UPL	☐	1. Rapid Test for Hydrophytic Vegetation
2. Poa compressa	30	yes	FACU	☐	2. Dominance Test is >50%
3. Juncus interior	20	yes	FACU	☐	3. Prevalence Index is ≤3.0[1]
4.				☐	4. Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
5.				☐	Problematic Hydrophytic Vegetation[1] (Explain)
6.				[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7.					
8.					
9.					
	100	= Total Cover			
Woody Vine Stratum (Plot size: 30')				**Hydrophytic Vegetation Present?**	☐ **Yes** ☒ **No**
1.					
		= Total Cover			
% Bare Ground in Herb Stratum: 0					

Remarks:

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: BR-UP-8B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-8	10 YR 3/3	100						
8-20	10 YR 5/4	100						

[1] Type: C=Concentration; D=Depletion; RM=Reduced Matrix; CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining; M=Matrix

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted.)

☐	Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐	1 cm Muck (A9) (**LRR I, J**)
☐	Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐	Coast Prairie Redox A16) (**LRR F, G, H**)
☐	Black Histic (A3)	☐	Stripped Matrix (S6)	☐	Dark Surface (S7) (**LRR G**)
☐	Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1)	☐	High Plains Depressions (F16) (**LRR H outside of MLRA 72 and 73**)
☐	Stratified Layers (A5) (**LRR F**)	☐	Loamy Gleyed Matrix (F2)	☐	Reduced Vertic (F18)
☐	1 cm Muck (A9) (**LRR F, G, H**)	☐	Depleted Matrix (F3)	☐	Red Parent Material (TF2)
☐	Depleted Below Dark Surface (A11)	☐	Redox Dark Surface (F6)	☐	Very Shallow Dark Surface (TF12)
☐	Thick Dark Surface (A12)	☐	Depleted Dark Surface (F7)	☐	Other (Explain in Remarks)
☐	Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)		[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
☐	2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)	☐	High Plains Depressions (F16) (**MLRA 72 and 73 of LRR H**)		
☐	5 cm Mucky Peat or Peat (S3) (**LRR F**)				

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

Remarks: No indication of hydric soils.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (minimum of two required)	
☐	Surface Water (A1)	☐	Salt Crust (B11)	☐	Surface Soil Cracks (B6)
☐	High Water Table (A2)	☐	Aquatic Invertebrates (B13)	☐	Sparsely Vegetated Concave Surface (B8)
☐	Saturation (A3)	☐	Hydrogen Sulfide Odor (C1)	☐	Drainage Patterns (B10)
☐	Water Marks (B1)	☐	Dry-Season Water Table (C2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
☐	Sediment Deposits (B2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)	☐	Crayfish Burrows (C8)
☐	Drift Deposits (B3)	☐	Presence of Reduced Iron (C4)	☐	Saturation Visible on Aerial Imagery (C9)
☐	Algal Mat or Crust (B4)	☐	Thin Muck Surface (C7)	☐	Geomorphic Position (D2)
☐	Iron Deposits (B5)	☐	Other (Explain in Remarks)	☐	FAC-Neutral Test (D5)
☐	Inundation Visible on Aerial Imagery (B7)			☐	Frost-Heave Hummocks (D7) (**LRR F**)
☐	Water-Stained Leaves (B9)				

Field Observations:

Surface Water Present?	☐ Yes ☒ No	Depth (inches):	**Water Hydrology Present?** ☐ Yes ☒ No
Water Table Present?	☐ Yes ☒ No	Depth (inches):	
Saturation Present? (includes capillary fringe)	☐ Yes ☒ No	Depth (inches):	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No primary or secondary indicators of wetland hydrology present.

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Brady Wind I		City/County: Stark	Sampling Date: 10/25/15
Applicant/Owner: Nextera		State: North Dakota	Sampling Point: BR-UP-9B
Investigator(s): S Yarbrough, R Sparhawk		Section, Township, Range:	
Landform (hillslope, terrace, etc.): shoulder of depression		Local relief (concave, convex, none) none	Slope (%): 0
Subregion (LRR): F	Lat: 46.64809	Long: -102.852	Datum: 84
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year?		Yes ☒ No ☐ (if no, explain in Remarks)	
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?		Are "normal circumstances" present?	Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If necessary, explain any answers in Remarks.)			

SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☐ Yes ☒ No	**Is the Sampled Area within a Wetland?**	☐ **Yes** ☒ **No**
Hydric Soil Present?	☐ Yes ☒ No		
Wetland Hydrology Present?	☐ Yes ☒ No		

Remarks:

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	**Dominance Test worksheet:**	
1. n/a				Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–):	0 (A)
2.				Total Number of Dominant Species Across All Strata:	1 (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	0 (A/B)
4.				**Prevalence Index worksheet:**	
		= Total Cover		Total % Cover of:	Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species	x 1 =
1. n/a				FACW species	x 2 =
2.				FAC species 10	x 3 = 30
3.				FACU species 90	x 4 = 360
4.				UPL species	x 5 =
5.				Column Totals: 100 (A)	390 (B)
		= Total Cover		Prevalence Index = B/A =	390/100 = 3.9
Herb Stratum (Plot size: 5')				**Hydrophytic Vegetation Indicators:**	
1. Pascopyrum smithii	90	yes	FACU	☐ 1. Rapid Test for Hydrophytic Vegetation	
2. Rumex crispus	10	no	FAC	☐ 2. Dominance Test is >50%	
3.				☐ 3. Prevalence Index is ≤3.0[1]	
4.				☐ 4. Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)	
5.				☐ Problematic Hydrophytic Vegetation[1] (Explain)	
6.				[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7.					
8.					
9.					
		= Total Cover			
Woody Vine Stratum (Plot size: 30')				**Hydrophytic Vegetation Present?**	☐ **Yes** ☒ **No**
1. n/a					
		= Total Cover			
% Bare Ground in Herb Stratum: 0					

Remarks:

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: BR-UP-9B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-20	10 YR 2/1	100					silt loam	

[1] Type: C=Concentration; D=Depletion; RM=Reduced Matrix; CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining; M=Matrix

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted.)				**Indicators for Problematic Hydric Soils [3]:**	
☐	Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐	1 cm Muck (A9) (**LRR I, J**)
☐	Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐	Coast Prairie Redox A16) (**LRR F, G, H**)
☐	Black Histic (A3)	☐	Stripped Matrix (S6)	☐	Dark Surface (S7) (**LRR G**)
☐	Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1)	☐	High Plains Depressions (F16) (**LRR H outside of MLRA 72 and 73**)
☐	Stratified Layers (A5) (**LRR F**)	☐	Loamy Gleyed Matrix (F2)	☐	Reduced Vertic (F18)
☐	1 cm Muck (A9) (**LRR F, G, H**)	☐	Depleted Matrix (F3)	☐	Red Parent Material (TF2)
☐	Depleted Below Dark Surface (A11)	☐	Redox Dark Surface (F6)	☐	Very Shallow Dark Surface (TF12)
☐	Thick Dark Surface (A12)	☐	Depleted Dark Surface (F7)	☐	Other (Explain in Remarks)
☐	Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)	[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
☐	2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)	☐	High Plains Depressions (F16) (**MLRA 72 and 73 of LRR H**)		
☐	5 cm Mucky Peat or Peat (S3) (**LRR F**)				

Restrictive Layer (if present):		
Type:	**Hydric Soil Present?**	☐ Yes ☒ No
Depth (inches):		

Remarks: No evidence to support hydric soils. Soil is dark but no redox (Mollic).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (minimum of two required)	
☐	Surface Water (A1)	☐	Salt Crust (B11)	☐	Surface Soil Cracks (B6)
☐	High Water Table (A2)	☐	Aquatic Invertebrates (B13)	☐	Sparsely Vegetated Concave Surface (B8)
☐	Saturation (A3)	☐	Hydrogen Sulfide Odor (C1)	☐	Drainage Patterns (B10)
☐	Water Marks (B1)	☐	Dry-Season Water Table (C2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
☐	Sediment Deposits (B2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)	☐	Crayfish Burrows (C8)
☐	Drift Deposits (B3)	☐	Presence of Reduced Iron (C4)	☐	Saturation Visible on Aerial Imagery (C9)
☐	Algal Mat or Crust (B4)	☐	Thin Muck Surface (C7)	☐	Geomorphic Position (D2)
☐	Iron Deposits (B5)	☐	Other (Explain in Remarks)	☐	FAC-Neutral Test (D5)
☐	Inundation Visible on Aerial Imagery (B7)			☐	Frost-Heave Hummocks (D7) (**LRR F**)
☐	Water-Stained Leaves (B9)				

Field Observations:				
Surface Water Present?	☐ Yes ☒ No	Depth (inches):	**Water Hydrology Present?**	☐ Yes ☒ No
Water Table Present?	☐ Yes ☒ No	Depth (inches):		
Saturation Present? (includes capillary fringe)	☐ Yes ☒ No	Depth (inches):		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No primary or secondary indicators of wetland hydrology.

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Brady Wind I		City/County: Stark	Sampling Date: 10/25/15
Applicant/Owner: Nextera		State: North Dakota	Sampling Point: BR-UP-10B
Investigator(s): S Yarbrough, R Sparhawk		Section, Township, Range:	
Landform (hillslope, terrace, etc.): sloping uplands		Local relief (concave, convex, none)	Slope (%): 5
Subregion (LRR): F	Lat: 46.65562	Long: -102.837	Datum: 84
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year?		Yes ☒ No ☐ (if no, explain in Remarks)	
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?		Are "normal circumstances" present?	Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If necessary, explain any answers in Remarks.)			

SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☐ Yes ☒ No	**Is the Sampled Area within a Wetland?**	☐ **Yes** ☒ **No**
Hydric Soil Present?	☐ Yes ☒ No		
Wetland Hydrology Present?	☐ Yes ☒ No		

Remarks: pasture

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	**Dominance Test worksheet:**	
1. n/a				Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–):	(A)
2.				Total Number of Dominant Species Across All Strata:	(B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	(A/B)
4.				**Prevalence Index worksheet:**	
		= Total Cover		Total % Cover of:	Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species	x 1 =
1. n/a				FACW species	x 2 =
2.				FAC species	x 3 =
3.				FACU species 15	x 4 = 60
4.				UPL species 80	x 5 = 400
5.				Column Totals: 95 (A)	460 (B)
		= Total Cover		Prevalence Index = B/A =	460/95 = 4.84
Herb Stratum (Plot size: 5')				**Hydrophytic Vegetation Indicators:**	
1. Bromus inermis	80	yes	UPL	☐ 1. Rapid Test for Hydrophytic Vegetation	
2. Poa compressa	15	no	FACU	☐ 2. Dominance Test is >50%	
3. Unknown aster (ericoides?)	5	no	?	☐ 3. Prevalence Index is ≤3.0[1]	
4.				☐ 4. Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)	
5.				☐ Problematic Hydrophytic Vegetation[1] (Explain)	
6.				[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7.					
8.					
9.					
	100	= Total Cover			
Woody Vine Stratum (Plot size: 30')				**Hydrophytic Vegetation Present?**	☐ **Yes** ☒ **No**
1. n/a					
		= Total Cover			
% Bare Ground in Herb Stratum: 0					

Remarks:

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: BR-UP-10B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-9	10 YR 3/1	100					silt loam	
9-20	10 YR 3/3	100					silty clay	

[1] Type: C=Concentration; D=Depletion; RM=Reduced Matrix; CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining; M=Matrix

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted.)

☐	Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐	1 cm Muck (A9) (**LRR I, J**)
☐	Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐	Coast Prairie Redox A16) (**LRR F, G, H**)
☐	Black Histic (A3)	☐	Stripped Matrix (S6)	☐	Dark Surface (S7) (**LRR G**)
☐	Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1)	☐	High Plains Depressions (F16) (**LRR H outside of MLRA 72 and 73**)
☐	Stratified Layers (A5) (**LRR F**)	☐	Loamy Gleyed Matrix (F2)	☐	Reduced Vertic (F18)
☐	1 cm Muck (A9) (**LRR F, G, H**)	☐	Depleted Matrix (F3)	☐	Red Parent Material (TF2)
☐	Depleted Below Dark Surface (A11)	☐	Redox Dark Surface (F6)	☐	Very Shallow Dark Surface (TF12)
☐	Thick Dark Surface (A12)	☐	Depleted Dark Surface (F7)	☐	Other (Explain in Remarks)
☐	Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)		[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
☐	2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)	☐	High Plains Depressions (F16) (**MLRA 72 and 73 of LRR H**)		
☐	5 cm Mucky Peat or Peat (S3) (**LRR F**)				

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☒ No

Remarks: No indicators for hydric soil. No redox.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (minimum of two required)	
☒	Surface Water (A1)	☐	Salt Crust (B11)	☐	Surface Soil Cracks (B6)
☐	High Water Table (A2)	☐	Aquatic Invertebrates (B13)	☐	Sparsely Vegetated Concave Surface (B8)
☐	Saturation (A3)	☐	Hydrogen Sulfide Odor (C1)	☐	Drainage Patterns (B10)
☐	Water Marks (B1)	☐	Dry-Season Water Table (C2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
☐	Sediment Deposits (B2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)	☐	Crayfish Burrows (C8)
☐	Drift Deposits (B3)	☐	Presence of Reduced Iron (C4)	☐	Saturation Visible on Aerial Imagery (C9)
☐	Algal Mat or Crust (B4)	☐	Thin Muck Surface (C7)	☐	Geomorphic Position (D2)
☐	Iron Deposits (B5)	☐	Other (Explain in Remarks)	☐	FAC-Neutral Test (D5)
☐	Inundation Visible on Aerial Imagery (B7)			☐	Frost-Heave Hummocks (D7) (**LRR F**)
☐	Water-Stained Leaves (B9)				

Field Observations:

Surface Water Present?	☐ Yes ☒ No	Depth (inches):	**Water Hydrology Present?** ☐ Yes ☒ No
Water Table Present?	☐ Yes ☒ No	Depth (inches):	
Saturation Present? (includes capillary fringe)	☐ Yes ☒ No	Depth (inches):	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No primary or secondary indicators for wetland hydrology.

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Brady Wind I		City/County: Dickinson/Stark	Sampling Date: 10/22/15
Applicant/Owner: Nextera		State: North Dakota	Sampling Point: BR-WT-1A
Investigator(s): K Brimacombe, A Bensted		Section, Township, Range: Sections 28 and 33, T137N, R98W	
Landform (hillslope, terrace, etc.): valley bottom		Local relief (concave, convex, none) concave	Slope (%): 1
Subregion (LRR): LRR F	Lat: 46.6468870	Long: -103.0732440	Datum: 84
Soil Map Unit Name:		NWI Classification: none	
Are climatic/hydrologic conditions on the site typical for this time of year?		Yes ☒ No ☐ (if no, explain in Remarks)	
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?		Are "normal circumstances" present?	Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If necessary, explain any answers in Remarks.)			

SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☒ Yes ☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes** ☐ **No**
Hydric Soil Present?	☒ Yes ☐ No		
Wetland Hydrology Present?	☒ Yes ☐ No		

Remarks: Boundary delineated based on topography and vegetation although patches of upland Bromus inermis occur throughout wetlands, but with hydric soil depressional PEM, generally followed a swale-like channel.

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. n/a			
2.			
3.			
4.			
		= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. n/a			
2.			
3.			
4.			
5.			
		= Total Cover	
Herb Stratum (Plot size: 5')			
1. Spartina pectinata	75	yes	FACW
2. Polygonum spp.	15	no	varies
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	90	= Total Cover	
Woody Vine Stratum (Plot size: 30')			
1. n/a			
		= Total Cover	
% Bare Ground in Herb Stratum: 10			

Dominance Test worksheet:	
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–):	1 (A)
Total Number of Dominant Species Across All Strata:	1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)
Prevalence Index = B/A =	

Hydrophytic Vegetation Indicators:

☐	1. Rapid Test for Hydrophytic Vegetation
☒	2. Dominance Test is >50%
☐	3. Prevalence Index is ≤3.0[1]
☐	4. Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☐	Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present?	☒ **Yes** ☐ **No**

Remarks:

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL Sampling Point: BR-WT-1A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-5	10 YR 3/1	85	10 YR 3/4	15	C	PL/M	clay loam	roots
5-17.5	10 YR 3/1	95	10 YR 3/6	5	C	M	clay loam	

[1] Type: C=Concentration; D=Depletion; RM=Reduced Matrix; CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining; M=Matrix

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted.)

☐	Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐	1 cm Muck (A9) (**LRR I, J**)
☐	Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐	Coast Prairie Redox A16) (**LRR F, G, H**)
☐	Black Histic (A3)	☐	Stripped Matrix (S6)	☐	Dark Surface (S7) (**LRR G**)
☐	Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1)	☐	High Plains Depressions (F16) (**LRR H outside of MLRA 72 and 73**)
☐	Stratified Layers (A5) (**LRR F**)	☐	Loamy Gleyed Matrix (F2)	☐	Reduced Vertic (F18)
☐	1 cm Muck (A9) (**LRR F, G, H**)	☐	Depleted Matrix (F3)	☐	Red Parent Material (TF2)
☐	Depleted Below Dark Surface (A11)	☒	Redox Dark Surface (F6)	☐	Very Shallow Dark Surface (TF12)
☐	Thick Dark Surface (A12)	☐	Depleted Dark Surface (F7)	☐	Other (Explain in Remarks)
☐	Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)		
☐	2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)	☐	High Plains Depressions (F16) (**MLRA 72 and 73 of LRR H**)		[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
☐	5 cm Mucky Peat or Peat (S3) (**LRR F**)				

Indicators for Problematic Hydric Soils [3]:

Restrictive Layer (if present):

Type: none

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

☐	Surface Water (A1)	☐	Salt Crust (B11)	☐	Surface Soil Cracks (B6)
☐	High Water Table (A2)	☐	Aquatic Invertebrates (B13)	☐	Sparsely Vegetated Concave Surface (B8)
☐	Saturation (A3)	☐	Hydrogen Sulfide Odor (C1)	☒	Drainage Patterns (B10)
☐	Water Marks (B1)	☐	Dry-Season Water Table (C2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
☐	Sediment Deposits (B2)	☒	Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)	☐	Crayfish Burrows (C8)
☐	Drift Deposits (B3)	☐	Presence of Reduced Iron (C4)	☐	Saturation Visible on Aerial Imagery (C9)
☐	Algal Mat or Crust (B4)	☐	Thin Muck Surface (C7)	☒	Geomorphic Position (D2)
☐	Iron Deposits (B5)	☐	Other (Explain in Remarks)	☒	FAC-Neutral Test (D5)
☐	Inundation Visible on Aerial Imagery (B7)			☐	Frost-Heave Hummocks (D7) (**LRR F**)
☐	Water-Stained Leaves (B9)				

Secondary Indicators (minimum of two required)

Field Observations:

Surface Water Present?	☐ Yes ☒ No	Depth (inches):	**Water Hydrology Present?** ☒ Yes ☐ No
Water Table Present?	☐ Yes ☒ No	Depth (inches):	
Saturation Present? (includes capillary fringe)	☐ Yes ☒ No	Depth (inches):	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Oxidized rhizospheres on living roots from 0-5", 8% of soil profile

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Brady Wind I		City/County: Stark	Sampling Date: 10/22/15
Applicant/Owner: Nextera		State: North Dakota	Sampling Point: BR-WT-1B
Investigator(s): S Yarbrough, R Sparhawk		Section, Township, Range:	
Landform (hillslope, terrace, etc.): roadside ditch		Local relief (concave, convex, none) concave	Slope (%): 1
Subregion (LRR): F (Northern Great Plains)	Lat: 46.64603	Long: -102.643	Datum: 84
Soil Map Unit Name: Belfield Grail Clay Loams, 0-2% slopes		NWI Classification: not mapped	
Are climatic/hydrologic conditions on the site typical for this time of year?		Yes ☒ No ☐ (if no, explain in Remarks)	
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?		Are "normal circumstances" present?	Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If necessary, explain any answers in Remarks.)			

SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☒ Yes ☐ No Hydric Soil Present? ☒ Yes ☐ No Wetland Hydrology Present? ☒ Yes ☐ No	**Is the Sampled Area within a Wetland?**	**☒ Yes ☐ No**
Remarks: Photos 8013 (NNE overview photo); 8011 (sedge closeup)		

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	**Dominance Test worksheet:**	
1. n/a				Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–):	3 (A)
2.				Total Number of Dominant Species Across All Strata:	3 (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)
4.				**Prevalence Index worksheet:**	
		= Total Cover		Total % Cover of:	Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species	x 1 =
1. n/a				FACW species	x 2 =
2.				FAC species	x 3 =
3.				FACU species	x 4 =
4.				UPL species	x 5 =
5.				Column Totals: (A)	(B)
		= Total Cover		Prevalence Index = B/A =	
Herb Stratum (Plot size: 5')				**Hydrophytic Vegetation Indicators:**	
1. Spartina pectinata	20	yes	FACW	☒ 1. Rapid Test for Hydrophytic Vegetation	
2. Typha latifolia	30	yes	OBL	☒ 2. Dominance Test is >50%	
3. Carex pellita	40	yes	OBL	☐ 3. Prevalence Index is ≤3.0[1]	
4.				☐ 4. Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)	
5.				☐ Problematic Hydrophytic Vegetation[1] (Explain)	
6.				[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7.					
8.					
9.					
	90	= Total Cover			
Woody Vine Stratum (Plot size: 30')				**Hydrophytic Vegetation Present?**	**☒ Yes ☐ No**
1. n/a					
		= Total Cover			
% Bare Ground in Herb Stratum: 10					
Remarks: Palustrine emergent species dominate					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL Sampling Point: BR-WT-1B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-6	10 YR 2/2	100					clay loam	
6-20	10 YR 5/2	85	7.5 YR 5/8	15	C	M/PL	silty clay	

[1] Type: C=Concentration; D=Depletion; RM=Reduced Matrix; CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining; M=Matrix

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted.)				**Indicators for Problematic Hydric Soils [3]:**	
☐	Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐	1 cm Muck (A9) (**LRR I, J**)
☐	Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐	Coast Prairie Redox A16) (**LRR F, G, H**)
☐	Black Histic (A3)	☐	Stripped Matrix (S6)	☐	Dark Surface (S7) (**LRR G**)
☐	Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1)	☐	High Plains Depressions (F16) (**LRR H outside of MLRA 72 and 73**)
☐	Stratified Layers (A5) (**LRR F**)	☐	Loamy Gleyed Matrix (F2)	☐	Reduced Vertic (F18)
☐	1 cm Muck (A9) (**LRR F, G, H**)	☒	Depleted Matrix (F3)	☐	Red Parent Material (TF2)
☒	Depleted Below Dark Surface (A11)	☐	Redox Dark Surface (F6)	☐	Very Shallow Dark Surface (TF12)
☐	Thick Dark Surface (A12)	☐	Depleted Dark Surface (F7)	☐	Other (Explain in Remarks)
☐	Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)	[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
☐	2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)	☐	High Plains Depressions (F16) (**MLRA 72 and 73 of LRR H**)		
☐	5 cm Mucky Peat or Peat (S3) (**LRR F**)				

Restrictive Layer (if present):		
Type:	**Hydric Soil Present?**	☒ Yes ☐ No
Depth (inches):		

Remarks: White precipitate on soil surface. Moist at 4" in sample plot.
Photo 8014 (soil matrix)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (minimum of two required)	
☐	Surface Water (A1)	☒	Salt Crust (B11)	☐	Surface Soil Cracks (B6)
☐	High Water Table (A2)	☐	Aquatic Invertebrates (B13)	☐	Sparsely Vegetated Concave Surface (B8)
☒	Saturation (A3)	☐	Hydrogen Sulfide Odor (C1)	☐	Drainage Patterns (B10)
☒	Water Marks (B1)	☐	Dry-Season Water Table (C2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
☐	Sediment Deposits (B2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)	☐	Crayfish Burrows (C8)
☐	Drift Deposits (B3)	☐	Presence of Reduced Iron (C4)	☐	Saturation Visible on Aerial Imagery (C9)
☐	Algal Mat or Crust (B4)	☐	Thin Muck Surface (C7)	☒	Geomorphic Position (D2) (Photo 8012)
☐	Iron Deposits (B5)	☐	Other (Explain in Remarks)	☐	FAC-Neutral Test (D5)
☐	Inundation Visible on Aerial Imagery (B7)			☐	Frost-Heave Hummocks (D7) (**LRR F**)
☒	Water-Stained Leaves (B9)				

Field Observations:				
Surface Water Present?	☐ Yes ☒ No	Depth (inches):	**Water Hydrology Present?**	☒ Yes ☐ No
Water Table Present?	☐ Yes ☒ No	Depth (inches):		
Saturation Present? (includes capillary fringe)	☒ Yes ☐ No	Depth (inches): 4		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Roadside ditch. Adjacent to manmade pond BR-Pond-3B. Wetland exists on the east side of the road also, but it is outside the survey corridor.

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Brady Wind I		City/County: Dickinson/Stark	Sampling Date: 10/23/15
Applicant/Owner: Nextera		State: North Dakota	Sampling Point: BR-WT-2A
Investigator(s): K Brimacombe, A Bensted		Section, Township, Range: S34 T137N R98W	
Landform (hillslope, terrace, etc.): valley bottom		Local relief (concave, convex, none) concave	Slope (%): 1
Subregion (LRR): LRR F	Lat: 46.6371391	Long: -103.0259856	Datum: 84
Soil Map Unit Name:		NWI Classification: none	
Are climatic/hydrologic conditions on the site typical for this time of year?		Yes ☒ No ☐ (if no, explain in Remarks)	
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?		Are "normal circumstances" present?	Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If necessary, explain any answers in Remarks.)			

SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☒ Yes ☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes** ☐ **No**
Hydric Soil Present?	☒ Yes ☐ No		
Wetland Hydrology Present?	☒ Yes ☐ No		

Remarks: Boundary delineated generally using vegetation and topography. PEM depressional wetland that generally followed a swale/channel. Wetland extends to north (outside survey corridor) and south (into no-access parcel).

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	**Dominance Test worksheet:**	
1. n/a				Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–):	1 (A)
2.				Total Number of Dominant Species Across All Strata:	1 (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)
4.				**Prevalence Index worksheet:**	
		= Total Cover		Total % Cover of:	Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species	x 1 =
1. n/a				FACW species	x 2 =
2.				FAC species	x 3 =
3.				FACU species	x 4 =
4.				UPL species	x 5 =
5.				Column Totals: (A)	(B)
		= Total Cover		Prevalence Index = B/A =	
Herb Stratum (Plot size: 5')				**Hydrophytic Vegetation Indicators:**	
1. Spartina pectinata	95	yes	FACW	☒	1. Rapid Test for Hydrophytic Vegetation
2. Rumex crispus	3		FAC	☒	2. Dominance Test is >50%
3. Bromus inermis	2		UPL	☐	3. Prevalence Index is ≤3.0[1]
4.				☐	4. Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
5.				☐	Problematic Hydrophytic Vegetation[1] (Explain)
6.				[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7.					
8.					
9.					
	100	= Total Cover			
Woody Vine Stratum (Plot size: 30')				**Hydrophytic Vegetation Present?**	☒ **Yes** ☐ **No**
1. n/a					
		= Total Cover			
% Bare Ground in Herb Stratum: 0					
Remarks: patches					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: BR-WT-2A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-4	10 YR 3/1	85	5 YR 3/4	15	C	M/PL	silty clay loam	lots of roots
4-10	10 YR 3/1	85	5 YR 3/4	15	C	M/PL	silty clay loam	
10-11	10 YR 4/1	85	5 YR 3/4	15	C	M/PL	silty clay loam	
11-13	10 YR 3/1	85	5 YR 3/4	15	C	M/PL	silty clay loam	
13-16	10 YR 3/1	85	5 YR 3/4	15	C	M/PL	silty clay loam	

[1] Type: C=Concentration; D=Depletion; RM=Reduced Matrix; CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining; M=Matrix

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted.)

☐	Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐	1 cm Muck (A9) (**LRR I, J**)
☐	Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐	Coast Prairie Redox A16) (**LRR F, G, H**)
☐	Black Histic (A3)	☐	Stripped Matrix (S6)	☐	Dark Surface (S7) (**LRR G**)
☐	Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1)	☐	High Plains Depressions (F16) (**LRR H outside of MLRA 72 and 73**)
☐	Stratified Layers (A5) (**LRR F**)	☐	Loamy Gleyed Matrix (F2)	☐	Reduced Vertic (F18)
☐	1 cm Muck (A9) (**LRR F, G, H**)	☐	Depleted Matrix (F3)	☐	Red Parent Material (TF2)
☐	Depleted Below Dark Surface (A11)	☒	Redox Dark Surface (F6)	☐	Very Shallow Dark Surface (TF12)
☐	Thick Dark Surface (A12)	☐	Depleted Dark Surface (F7)	☐	Other (Explain in Remarks)
☐	Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)		[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
☐	2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)	☐	High Plains Depressions (F16) (**MLRA 72 and 73 of LRR H**)		
☐	5 cm Mucky Peat or Peat (S3) (**LRR F**)				

Restrictive Layer (if present):

Type: 0

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (minimum of two required)	
☐	Surface Water (A1)	☐	Salt Crust (B11)	☐	Surface Soil Cracks (B6)
☐	High Water Table (A2)	☐	Aquatic Invertebrates (B13)	☐	Sparsely Vegetated Concave Surface (B8)
☐	Saturation (A3)	☐	Hydrogen Sulfide Odor (C1)	☐	Drainage Patterns (B10)
☐	Water Marks (B1)	☐	Dry-Season Water Table (C2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
☐	Sediment Deposits (B2)	☒	Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)	☐	Crayfish Burrows (C8)
☐	Drift Deposits (B3)	☐	Presence of Reduced Iron (C4)	☒	Saturation Visible on Aerial Imagery (C9)
☐	Algal Mat or Crust (B4)	☐	Thin Muck Surface (C7)	☒	Geomorphic Position (D2)
☐	Iron Deposits (B5)	☐	Other (Explain in Remarks)	☒	FAC-Neutral Test (D5)
☐	Inundation Visible on Aerial Imagery (B7)			☐	Frost-Heave Hummocks (D7) (**LRR F**)
☐	Water-Stained Leaves (B9)				

Field Observations:

Surface Water Present?	☐ Yes ☒ No	Depth (inches):	**Water Hydrology Present?** ☒ Yes ☐ No
Water Table Present?	☐ Yes ☒ No	Depth (inches):	
Saturation Present? (includes capillary fringe)	☐ Yes ☒ No	Depth (inches):	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Brady Wind I		City/County: Stark	Sampling Date: 10/22/15
Applicant/Owner: Nextera		State: North Dakota	Sampling Point: BR-WT-2B
Investigator(s): S Yarbrough, R Sparhawk		Section, Township, Range:	
Landform (hillslope, terrace, etc.): prairie pothole		Local relief (concave, convex, none) concave	Slope (%): 5
Subregion (LRR): F	Lat: 46.63654	Long: -102.652	Datum: 84
Soil Map Unit Name: Heil Silty Clay Loam, 0-1% slopes		NWI Classification: PEMAd	
Are climatic/hydrologic conditions on the site typical for this time of year?		Yes ☒ No ☐ (if no, explain in Remarks)	
Are Vegetation ☒, Soil ☐, or Hydrology ☒ significantly disturbed? (**but it is normal**)		Are "normal circumstances" present?	Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If necessary, explain any answers in Remarks.)			

SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☒ Yes ☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes** ☐ **No**
Hydric Soil Present?	☒ Yes ☐ No		
Wetland Hydrology Present?	☒ Yes ☐ No		

Remarks: Plowed field. It is mapped by NWI as a relatively large, partially drained, PEM wetland.

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. n/a			
2.			
3.			
4.			
		= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. n/a			
2.			
3.			
4.			
5.			
		= Total Cover	
Herb Stratum (Plot size: 5')			
1. Rumex sp. (perhaps Rumex crispus)	≤2		
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
		= Total Cover	
Woody Vine Stratum (Plot size: 30')			
1. n/a			
		= Total Cover	
% Bare Ground in Herb Stratum: 98			

Dominance Test worksheet:	
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–):	0 (A)
Total Number of Dominant Species Across All Strata:	0 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	0 (A/B)

Prevalence Index worksheet:	
Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)
Prevalence Index = B/A =	

Hydrophytic Vegetation Indicators:	
☐	1. Rapid Test for Hydrophytic Vegetation
☐	2. Dominance Test is >50%
☐	3. Prevalence Index is ≤3.0[1]
☐	4. Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☒	Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present?	☒ **?** ☐ **No**

Remarks: Plowed field. There are remnant plant parts that appear to be a species of Rumex - potentially hydrophitic. Problematic for vegetation.

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: BR-WT-2B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-5	10 YR 2/2	100					loam	plowed
5-8	10 YR 2/2	100					loam	unplowed
8-17	10 YR 2/2	65	5 YR 5/6	35	C	M	loam	
17-20	10 YR 3/2	60	5 YR 5/6	40	C	M	clay loam	

[1] Type: C=Concentration; D=Depletion; RM=Reduced Matrix; CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining; M=Matrix

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted.)				**Indicators for Problematic Hydric Soils [3]:**	
☐	Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐	1 cm Muck (A9) (**LRR I, J**)
☐	Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐	Coast Prairie Redox A16) (**LRR F, G, H**)
☐	Black Histic (A3)	☐	Stripped Matrix (S6)	☐	Dark Surface (S7) (**LRR G**)
☐	Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1)	☐	High Plains Depressions (F16) (**LRR H outside of MLRA 72 and 73**)
☐	Stratified Layers (A5) (**LRR F**)	☐	Loamy Gleyed Matrix (F2)	☐	Reduced Vertic (F18)
☐	1 cm Muck (A9) (**LRR F, G, H**)	☐	Depleted Matrix (F3)	☐	Red Parent Material (TF2)
☐	Depleted Below Dark Surface (A11)	☒	Redox Dark Surface (F6)	☐	Very Shallow Dark Surface (TF12)
☐	Thick Dark Surface (A12)	☐	Depleted Dark Surface (F7)	☐	Other (Explain in Remarks)
☐	Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)	[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
☐	2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)	☐	High Plains Depressions (F16) (**MLRA 72 and 73 of LRR H**)		
☐	5 cm Mucky Peat or Peat (S3) (**LRR F**)				

Restrictive Layer (if present):		
Type:	**Hydric Soil Present?**	☒ Yes ☐ No
Depth (inches):		

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (minimum of two required)	
☐	Surface Water (A1)	☐	Salt Crust (B11)	☐	Surface Soil Cracks (B6)
☐	High Water Table (A2)	☐	Aquatic Invertebrates (B13)	☐	Sparsely Vegetated Concave Surface (B8)
☐	Saturation (A3)	☐	Hydrogen Sulfide Odor (C1)	☐	Drainage Patterns (B10)
☐	Water Marks (B1)	☐	Dry-Season Water Table (C2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
☐	Sediment Deposits (B2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)	☐	Crayfish Burrows (C8)
☐	Drift Deposits (B3)	☐	Presence of Reduced Iron (C4)	☒	Saturation Visible on Aerial Imagery (C9)
☐	Algal Mat or Crust (B4)	☐	Thin Muck Surface (C7)	☒	Geomorphic Position (D2)
☐	Iron Deposits (B5)	☐	Other (Explain in Remarks)	☐	FAC-Neutral Test (D5)
☐	Inundation Visible on Aerial Imagery (B7)			☐	Frost-Heave Hummocks (D7) (**LRR F**)
☐	Water-Stained Leaves (B9)				

Field Observations:				
Surface Water Present?	☐ Yes ☒ No	Depth (inches):	**Water Hydrology Present?**	☒ Yes (probable) ☐ No
Water Table Present?	☐ Yes ☒ No	Depth (inches):		
Saturation Present? (includes capillary fringe)	☐ Yes ☒ No	Depth (inches):		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Obvious depressional feature in large farm field. More or less circular to oval in shape.

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Brady Wind I		City/County: Dickinson/Stark	Sampling Date: 10/23/15
Applicant/Owner: Nextera		State: North Dakota	Sampling Point: BR-WT-3A
Investigator(s): K Brimacombe, A Bensted		Section, Township, Range: S34 T137N R98W	
Landform (hillslope, terrace, etc.): toe slope		Local relief (concave, convex, none) none	Slope (%): 0.5
Subregion (LRR): LRR F	Lat: 46.6426356	Long: -103.0364435	Datum: 84
Soil Map Unit Name:		NWI Classification: none	
Are climatic/hydrologic conditions on the site typical for this time of year?		Yes ☒ No ☐ (if no, explain in Remarks)	
Are Vegetation ☒, Soil ☐, or Hydrology ☐ significantly disturbed?		Are "normal circumstances" present?	Yes ☐ No ☒
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If necessary, explain any answers in Remarks.)			

SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☒ Yes ☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes** ☐ **No**
Hydric Soil Present?	☒ Yes ☐ No		
Wetland Hydrology Present?	☒ Yes ☐ No		

Remarks: Small slope PEM wetland in plowed field

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. n/a			
2.			
3.			
4.			
		= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. n/a			
2.			
3.			
4.			
5.			
		= Total Cover	
Herb Stratum (Plot size: 5')			
1. Echinochloa crus-galli *	40	yes	FAC
2. Bassia scoparia	20	yes	FACU
3. Amaranthus sp.	3		
4. Aster sp.	3		
5.			
6.			
7.			
8.			
9.			
	66	= Total Cover	
Woody Vine Stratum (Plot size: 30')			
1. n/a			
		= Total Cover	
% Bare Ground in Herb Stratum: 34			

Dominance Test worksheet:	
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–):	1 (A)
Total Number of Dominant Species Across All Strata:	2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	50 (A/B)

Prevalence Index worksheet:		
Total % Cover of:		Multiply by:
OBL species		x 1 =
FACW species		x 2 =
FAC species	40	x 3 = 120
FACU species	20	x 4 = 80
UPL species		x 5 =
Column Totals:	60 (A)	200 (B)
Prevalence Index = B/A =		200/60 = 3.3

Hydrophytic Vegetation Indicators:	
☐	1. Rapid Test for Hydrophytic Vegetation
☐	2. Dominance Test is >50%
☐	3. Prevalence Index is ≤3.0[1]
☐	4. Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☒	Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present?	☒ **Yes** ☐ **No**	

Remarks: * potential E. murrita. E. murrita is FACW.

Plowed field has altered natural plant community that would exist. Area now dominated by invasive weedy species. Plot/wetland meets hydric soil and hydrology wetland criteria.

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: BR-WT-3A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-5	10 YR 2/1	95	2.5 YR 2.5/3	5	C	M	sandy clay	
5-13	10 YR 3/3	100					clay	

[1] Type: C=Concentration; D=Depletion; RM=Reduced Matrix; CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining; M=Matrix

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted.)				**Indicators for Problematic Hydric Soils [3]:**	
☐	Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐	1 cm Muck (A9) (**LRR I, J**)
☐	Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐	Coast Prairie Redox A16) (**LRR F, G, H**)
☐	Black Histic (A3)	☐	Stripped Matrix (S6)	☐	Dark Surface (S7) (**LRR G**)
☐	Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1)	☐	High Plains Depressions (F16) (**LRR H outside of MLRA 72 and 73**)
☐	Stratified Layers (A5) (**LRR F**)	☐	Loamy Gleyed Matrix (F2)	☐	Reduced Vertic (F18)
☐	1 cm Muck (A9) (**LRR F, G, H**)	☐	Depleted Matrix (F3)	☐	Red Parent Material (TF2)
☐	Depleted Below Dark Surface (A11)	☒	Redox Dark Surface (F6)	☐	Very Shallow Dark Surface (TF12)
☐	Thick Dark Surface (A12)	☐	Depleted Dark Surface (F7)	☐	Other (Explain in Remarks)
☐	Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)	[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
☐	2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)	☐	High Plains Depressions (F16) (**MLRA 72 and 73 of LRR H**)		
☐	5 cm Mucky Peat or Peat (S3) (**LRR F**)				

Restrictive Layer (if present):

Type: compacted clay

Depth (inches): 13

Hydric Soil Present? ☒ Yes ☐ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (minimum of two required)	
☐	Surface Water (A1)	☐	Salt Crust (B11)	☐	Surface Soil Cracks (B6)
☐	High Water Table (A2)	☐	Aquatic Invertebrates (B13)	☐	Sparsely Vegetated Concave Surface (B8)
☐	Saturation (A3)	☐	Hydrogen Sulfide Odor (C1)	☐	Drainage Patterns (B10)
☐	Water Marks (B1)	☐	Dry-Season Water Table (C2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
☐	Sediment Deposits (B2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)	☐	Crayfish Burrows (C8)
☐	Drift Deposits (B3)	☐	Presence of Reduced Iron (C4)	☒	Saturation Visible on Aerial Imagery (C9)
☐	Algal Mat or Crust (B4)	☐	Thin Muck Surface (C7)	☒	Geomorphic Position (D2)
☒	Iron Deposits (B5)	☐	Other (Explain in Remarks)	☐	FAC-Neutral Test (D5)
☐	Inundation Visible on Aerial Imagery (B7)			☐	Frost-Heave Hummocks (D7) (**LRR F**)
☐	Water-Stained Leaves (B9)				

Field Observations:

			Water Hydrology Present?	
Surface Water Present?	☐ Yes ☒ No	Depth (inches):		☒ Yes ☐ No
Water Table Present?	☐ Yes ☒ No	Depth (inches):		
Saturation Present? (includes capillary fringe)	☐ Yes ☒ No	Depth (inches):		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Brady Wind I		City/County: Stark	Sampling Date: 10/24/15
Applicant/Owner: Nextera		State: North Dakota	Sampling Point: BR-WT-3B
Investigator(s): S Yarbrough, R Sparhawk		Section, Township, Range:	
Landform (hillslope, terrace, etc.): swale or drainage		Local relief (concave, convex, none) concave	Slope (%): 1
Subregion (LRR): F	Lat: 46.6347880	Long: -102.6977999	Datum: 84
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year?		Yes ☒ No ☐ (if no, explain in Remarks)	
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?		Are "normal circumstances" present?	Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If necessary, explain any answers in Remarks.)			

SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☒ Yes ☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes** ☐ **No**
Hydric Soil Present?	☒ Yes ☐ No		
Wetland Hydrology Present?	☒ Yes ☐ No		

Remarks: Photo 8038 (SW)

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	**Dominance Test worksheet:**	
1. n/a				Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–):	1 (A)
2.				Total Number of Dominant Species Across All Strata:	1 (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)
4.				**Prevalence Index worksheet:**	
		= Total Cover		Total % Cover of:	Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species	x 1 =
1. n/a				FACW species 80	x 2 = 160
2.				FAC species 5	x 3 = 15
3.				FACU species	x 4 =
4.				UPL species	x 5 =
5.				Column Totals: 85 (A)	175 (B)
		= Total Cover		Prevalence Index = B/A =	175/85 = 2.06
Herb Stratum (Plot size: 5')				**Hydrophytic Vegetation Indicators:**	
1. Juncus balticus	75	yes	FACW	☒ 1. Rapid Test for Hydrophytic Vegetation	
2. Rumex crispus	<5	no	FAC	☒ 2. Dominance Test is >50%	
3. Hordeum jubatum	<5	no	FACW	☒ 3. Prevalence Index is ≤3.0[1]	
4.				☐ 4. Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)	
5.				☐ Problematic Hydrophytic Vegetation[1] (Explain)	
6.				[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7.					
8.					
9.					
		= Total Cover			
Woody Vine Stratum (Plot size: 30')				**Hydrophytic Vegetation Present?**	☒ **Yes** ☐ **No**
1. n/a					
		= Total Cover			
% Bare Ground in Herb Stratum: 20 (standing water)					

Remarks: Photo 8043 (SSE)

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: BR-WT-3B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-5	10 YR 3/1	100					silt loam	
5-14	10 YR 3/1	90	10 YR 4/6	10	C	M/PL	silt loam	

[1] Type: C=Concentration; D=Depletion; RM=Reduced Matrix; CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining; M=Matrix

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted.)				**Indicators for Problematic Hydric Soils [3]:**	
☐	Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐	1 cm Muck (A9) (**LRR I, J**)
☐	Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐	Coast Prairie Redox A16) (**LRR F, G, H**)
☐	Black Histic (A3)	☐	Stripped Matrix (S6)	☐	Dark Surface (S7) (**LRR G**)
☐	Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1)	☐	High Plains Depressions (F16) (**LRR H outside of MLRA 72 and 73**)
☐	Stratified Layers (A5) (**LRR F**)	☐	Loamy Gleyed Matrix (F2)	☐	Reduced Vertic (F18)
☐	1 cm Muck (A9) (**LRR F, G, H**)	☐	Depleted Matrix (F3)	☐	Red Parent Material (TF2)
☐	Depleted Below Dark Surface (A11)	☒	Redox Dark Surface (F6)	☐	Very Shallow Dark Surface (TF12)
☐	Thick Dark Surface (A12)	☐	Depleted Dark Surface (F7)	☐	Other (Explain in Remarks)
☐	Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)	[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
☐	2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)	☐	High Plains Depressions (F16) (**MLRA 72 and 73 of LRR H**)		
☐	5 cm Mucky Peat or Peat (S3) (**LRR F**)				

Restrictive Layer (if present):		
Type:	**Hydric Soil Present?**	☒ Yes ☐ No
Depth (inches):		

Remarks: Photos 8048 and 8049 showing redox

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (minimum of two required)	
☒	Surface Water (A1)	☐	Salt Crust (B11)	☐	Surface Soil Cracks (B6)
☒	High Water Table (A2)	☐	Aquatic Invertebrates (B13)	☐	Sparsely Vegetated Concave Surface (B8)
☒	Saturation (A3)	☐	Hydrogen Sulfide Odor (C1)	☐	Drainage Patterns (B10)
☐	Water Marks (B1)	☐	Dry-Season Water Table (C2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
☐	Sediment Deposits (B2)	☒	Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)	☐	Crayfish Burrows (C8)
☐	Drift Deposits (B3)	☐	Presence of Reduced Iron (C4)	☒	Saturation Visible on Aerial Imagery (C9)
☐	Algal Mat or Crust (B4)	☐	Thin Muck Surface (C7)	☒	Geomorphic Position (D2)
☐	Iron Deposits (B5)	☐	Other (Explain in Remarks)	☐	FAC-Neutral Test (D5)
☐	Inundation Visible on Aerial Imagery (B7)			☐	Frost-Heave Hummocks (D7) (**LRR F**)
☐	Water-Stained Leaves (B9)				

Field Observations:				
Surface Water Present?	☒ Yes ☐ No	Depth (inches): 2	**Water Hydrology Present?**	☒ Yes ☐ No
Water Table Present?	☒ Yes ☐ No	Depth (inches): 12		
Saturation Present? (includes capillary fringe)	☒ Yes ☐ No	Depth (inches): 0		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photography available

Remarks: Photo 8042 (geomorphic position)

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Brady Wind I		City/County: Dickinson/Stark	Sampling Date: 10/24/15
Applicant/Owner: Nextera		State: North Dakota	Sampling Point: BR-WT-4A
Investigator(s): K Brimacombe, A Bensted		Section, Township, Range: S36 T137N R98W	
Landform (hillslope, terrace, etc.): depression in ag field		Local relief (concave, convex, none) concave	Slope (%): 1
Subregion (LRR): LRR F	Lat: 46.6365033	Long: -102.9977182	Datum: 84
Soil Map Unit Name:		NWI Classification: PEMA	
Are climatic/hydrologic conditions on the site typical for this time of year?		Yes ☒ No ☐ (if no, explain in Remarks)	
Are Vegetation ☒, Soil ☐, or Hydrology ☐ significantly disturbed?		Are "normal circumstances" present?	Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If necessary, explain any answers in Remarks.)			

SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☒ Yes ☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes** ☐ **No**
Hydric Soil Present?	☒ Yes ☐ No		
Wetland Hydrology Present?	☒ Yes ☐ No		

Remarks: Vegetation disturbed due to agricultural production. Sample plot located within soybean field.

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	**Dominance Test worksheet:**	
1. n/a				Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–):	1 (A)
2.				Total Number of Dominant Species Across All Strata:	2 (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	50 (A/B)
4.				**Prevalence Index worksheet:**	
		= Total Cover		Total % Cover of:	Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species	x 1 =
1. n/a				FACW species	x 2 =
2.				FAC species	x 3 =
3.				FACU species	x 4 =
4.				UPL species	x 5 =
5.				Column Totals: (A)	(B)
		= Total Cover		Prevalence Index = B/A =	
Herb Stratum * (Plot size: 5')				**Hydrophytic Vegetation Indicators:**	
1. Glycine max (soybean)	50	yes	NI	☐ 1. Rapid Test for Hydrophytic Vegetation	
2. Hordeum jubatum	20	yes	FACW	☐ 2. Dominance Test is >50%	
3. Potentilla norvegica	15	no	FAC	☐ 3. Prevalence Index is ≤3.0[1]	
4. Beckmannia syzigachne	5	no	OBL	☐ 4. Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)	
5. Bidens spp.	5	no	varies	☒ Problematic Hydrophytic Vegetation[1] (Explain)	
6.				[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7.					
8.					
9.					
	95	= Total Cover			
Woody Vine Stratum (Plot size: 30')				**Hydrophytic Vegetation Present?**	☒ **Yes** ☐ **No**
1. n/a					
		= Total Cover			
% Bare Ground in Herb Stratum: 5					

Remarks: * Plowed field; vegetation primarily soybean and other unidentifiable plants. Both wetland hydrology and hydric soil criteria observed. This indicates if vegetation was not altered, hydrophytic vegetation would likely exist.

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL Sampling Point: BR-WT-4A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-6	10 YR 3/1	85	5 YR 4/6	15	C	M	clay loam	
6-10	10 YR 2/1	85	5 YR 3/4	15	C	M/PL	clay loam	
10-16	10 YR 3/1	75	5 YR 5/8	15	C	M	silty clay loam	
10-16	10 YR 3/1		5 YR 5/4	10	C	M	silty clay loam	

[1] Type: C=Concentration; D=Depletion; RM=Reduced Matrix; CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining; M=Matrix

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted.)

☐	Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐	1 cm Muck (A9) (**LRR I, J**)
☐	Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐	Coast Prairie Redox A16) (**LRR F, G, H**)
☐	Black Histic (A3)	☐	Stripped Matrix (S6)	☐	Dark Surface (S7) (**LRR G**)
☐	Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1)	☐	High Plains Depressions (F16) (**LRR H outside of MLRA 72 and 73**)
☐	Stratified Layers (A5) (**LRR F**)	☐	Loamy Gleyed Matrix (F2)	☐	Reduced Vertic (F18)
☐	1 cm Muck (A9) (**LRR F, G, H**)	☐	Depleted Matrix (F3)	☐	Red Parent Material (TF2)
☐	Depleted Below Dark Surface (A11)	☒	Redox Dark Surface (F6)	☐	Very Shallow Dark Surface (TF12)
☐	Thick Dark Surface (A12)	☐	Depleted Dark Surface (F7)	☐	Other (Explain in Remarks)
☐	Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)		[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
☐	2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)	☐	High Plains Depressions (F16) (**MLRA 72 and 73 of LRR H**)		
☐	5 cm Mucky Peat or Peat (S3) (**LRR F**)				

Indicators for Problematic Hydric Soils [3]:

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

☐	Surface Water (A1)	☐	Salt Crust (B11)	☐	Surface Soil Cracks (B6)
☐	High Water Table (A2)	☐	Aquatic Invertebrates (B13)	☐	Sparsely Vegetated Concave Surface (B8)
☐	Saturation (A3)	☐	Hydrogen Sulfide Odor (C1)	☐	Drainage Patterns (B10)
☐	Water Marks (B1)	☐	Dry-Season Water Table (C2)	☒	Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
☐	Sediment Deposits (B2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)	☐	Crayfish Burrows (C8)
☐	Drift Deposits (B3)	☐	Presence of Reduced Iron (C4)	☒	Saturation Visible on Aerial Imagery (C9)
☐	Algal Mat or Crust (B4)	☐	Thin Muck Surface (C7)	☒	Geomorphic Position (D2)
☐	Iron Deposits (B5)	☐	Other (Explain in Remarks)	☐	FAC-Neutral Test (D5)
☐	Inundation Visible on Aerial Imagery (B7)			☐	Frost-Heave Hummocks (D7) (**LRR F**)
☐	Water-Stained Leaves (B9)				

Secondary Indicators (minimum of two required)

Field Observations:

Surface Water Present?	☐ Yes ☒ No	Depth (inches):	**Water Hydrology Present?** ☒ Yes ☐ No
Water Table Present?	☐ Yes ☒ No	Depth (inches):	
Saturation Present? (includes capillary fringe)	☐ Yes ☒ No	Depth (inches):	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Brady Wind I		City/County: Stark	Sampling Date: 10/24/15
Applicant/Owner: Nextera		State: North Dakota	Sampling Point: BR-WT-4B
Investigator(s): S Yarbrough, R Sparhawk		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): F	Lat:	Long:	Datum: 84
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year?		Yes ☐ No ☐ (if no, explain in Remarks)	
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?		Are "normal circumstances" present?	Yes ☐ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If necessary, explain any answers in Remarks.)			

SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? ☐ Yes ☐ No Hydric Soil Present? ☐ Yes ☐ No Wetland Hydrology Present? ☐ Yes ☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes** ☐ **No**
Remarks:		

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	**Dominance Test worksheet:**	
1.				Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–):	(A)
2.				Total Number of Dominant Species Across All Strata:	(B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	(A/B)
4.				**Prevalence Index worksheet:**	
		= Total Cover		Total % Cover of:	Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species	x 1 =
1.				FACW species	x 2 =
2.				FAC species	x 3 =
3.				FACU species	x 4 =
4.				UPL species	x 5 =
5.				Column Totals: (A)	(B)
		= Total Cover		Prevalence Index = B/A =	
Herb Stratum (Plot size: 5')				**Hydrophytic Vegetation Indicators:**	
1.				☐ 1. Rapid Test for Hydrophytic Vegetation	
2.				☐ 2. Dominance Test is >50%	
3.				☐ 3. Prevalence Index is ≤3.0[1]	
4.				☐ 4. Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)	
5.				☐ Problematic Hydrophytic Vegetation[1] (Explain)	
6.				[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7.					
8.					
9.					
		= Total Cover			
Woody Vine Stratum (Plot size: 30')				**Hydrophytic Vegetation Present?**	☐ **Yes** ☐ **No**
1.					
		= Total Cover			
% Bare Ground in Herb Stratum:					
Remarks:					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL Sampling Point: BR-

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks

[1] Type: C=Concentration; D=Depletion; RM=Reduced Matrix; CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining; M=Matrix

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted.)				**Indicators for Problematic Hydric Soils [3]:**	
☐	Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐	1 cm Muck (A9) (**LRR I, J**)
☐	Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐	Coast Prairie Redox A16) (**LRR F, G, H**)
☐	Black Histic (A3)	☐	Stripped Matrix (S6)	☐	Dark Surface (S7) (**LRR G**)
☐	Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1)	☐	High Plains Depressions (F16) (**LRR H outside of MLRA 72 and 73**)
☐	Stratified Layers (A5) (**LRR F**)	☐	Loamy Gleyed Matrix (F2)	☐	Reduced Vertic (F18)
☐	1 cm Muck (A9) (**LRR F, G, H**)	☐	Depleted Matrix (F3)	☐	Red Parent Material (TF2)
☐	Depleted Below Dark Surface (A11)	☐	Redox Dark Surface (F6)	☐	Very Shallow Dark Surface (TF12)
☐	Thick Dark Surface (A12)	☐	Depleted Dark Surface (F7)	☐	Other (Explain in Remarks)
☐	Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)	[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
☐	2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)	☐	High Plains Depressions (F16) (**MLRA 72 and 73 of LRR H**)		
☐	5 cm Mucky Peat or Peat (S3) (**LRR F**)				

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? ☐ Yes ☐ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (minimum of two required)	
☐	Surface Water (A1)	☐	Salt Crust (B11)	☐	Surface Soil Cracks (B6)
☐	High Water Table (A2)	☐	Aquatic Invertebrates (B13)	☐	Sparsely Vegetated Concave Surface (B8)
☐	Saturation (A3)	☐	Hydrogen Sulfide Odor (C1)	☐	Drainage Patterns (B10)
☐	Water Marks (B1)	☐	Dry-Season Water Table (C2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
☐	Sediment Deposits (B2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)	☐	Crayfish Burrows (C8)
☐	Drift Deposits (B3)	☐	Presence of Reduced Iron (C4)	☐	Saturation Visible on Aerial Imagery (C9)
☐	Algal Mat or Crust (B4)	☐	Thin Muck Surface (C7)	☐	Geomorphic Position (D2)
☐	Iron Deposits (B5)	☐	Other (Explain in Remarks)	☐	FAC-Neutral Test (D5)
☐	Inundation Visible on Aerial Imagery (B7)			☐	Frost-Heave Hummocks (D7) (**LRR F**)
☐	Water-Stained Leaves (B9)				

Field Observations:			**Water Hydrology Present?**	
Surface Water Present?	☐ Yes ☐ No	Depth (inches):		☐ Yes ☐ No
Water Table Present?	☐ Yes ☐ No	Depth (inches):		
Saturation Present? (includes capillary fringe)	☐ Yes ☐ No	Depth (inches):		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Brady Wind I		City/County: Dickinson/Stark	Sampling Date: 10/24/15
Applicant/Owner: Nextera		State: North Dakota	Sampling Point: BR-WT-5A
Investigator(s): K Brimacombe, A Bensted		Section, Township, Range: S27 T137N R98W	
Landform (hillslope, terrace, etc.): drainage between hillslopes		Local relief (concave, convex, none) convex	Slope (%): 1
Subregion (LRR): LRR F	Lat: 46.6445100	Long: -103.0399614	Datum: 84
Soil Map Unit Name:		NWI Classification: none	
Are climatic/hydrologic conditions on the site typical for this time of year?		Yes ☒ No ☐ (if no, explain in Remarks)	
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?		Are "normal circumstances" present?	Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If necessary, explain any answers in Remarks.)			

SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☒ Yes ☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes** ☐ **No**
Hydric Soil Present?	☒ Yes ☐ No		
Wetland Hydrology Present?	☒ Yes ☐ No		

Remarks: PEM wetland located in linear low point between rolling hills (farmed). Approximately 20% open water at time of sampling and 2% of mapped wetland includes upland isolated patches of Bromus inermis.

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. n/a			
2.			
3.			
4.			
		= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. n/a			
2.			
3.			
4.			
5.			
		= Total Cover	
Herb Stratum (Plot size: 5')			
1. Spartina pectinata	85	yes	FACW
2. Hordeum jubatum	10	no	FACW
3. unknown aster	5	no	--
4.			
5.			
6.			
7.			
8.			
9.			
		= Total Cover	
Woody Vine Stratum (Plot size: 30')			
1. n/a			
		= Total Cover	
% Bare Ground in Herb Stratum: 0			

Dominance Test worksheet:	
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–):	1 (A)
Total Number of Dominant Species Across All Strata:	1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)
Prevalence Index = B/A =	

Hydrophytic Vegetation Indicators:

☐	1. Rapid Test for Hydrophytic Vegetation
☒	2. Dominance Test is >50%
☐	3. Prevalence Index is ≤3.0[1]
☐	4. Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☐	Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present?	☒ **Yes** ☐ **No**

Remarks:

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: BR-WT-5A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-5	10 YR 3/1	90	10 YR 3/4	10	C	M/PL	silt clay	lots of roots
5-8	10 YR 3/1	90	10 YR 3/4	10	C	M/PL	silt clay	
8-13	10 YR 3/2	100					silt clay	
13-18	10 YR 4/1	95	10 YR 3/4	5	C	M	silt clay	

[1] Type: C=Concentration; D=Depletion; RM=Reduced Matrix; CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining; M=Matrix

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted.)

☐	Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐	1 cm Muck (A9) (**LRR I, J**)
☐	Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐	Coast Prairie Redox A16) (**LRR F, G, H**)
☐	Black Histic (A3)	☐	Stripped Matrix (S6)	☐	Dark Surface (S7) (**LRR G**)
☐	Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1)	☐	High Plains Depressions (F16) (**LRR H outside of MLRA 72 and 73**)
☐	Stratified Layers (A5) (**LRR F**)	☐	Loamy Gleyed Matrix (F2)	☐	Reduced Vertic (F18)
☐	1 cm Muck (A9) (**LRR F, G, H**)	☐	Depleted Matrix (F3)	☐	Red Parent Material (TF2)
☐	Depleted Below Dark Surface (A11)	☒	Redox Dark Surface (F6)	☐	Very Shallow Dark Surface (TF12)
☐	Thick Dark Surface (A12)	☐	Depleted Dark Surface (F7)	☐	Other (Explain in Remarks)
☐	Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)		[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
☐	2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)	☐	High Plains Depressions (F16) (**MLRA 72 and 73 of LRR H**)		
☐	5 cm Mucky Peat or Peat (S3) (**LRR F**)				

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

☐	Surface Water (A1)	☐	Salt Crust (B11)	☐	Surface Soil Cracks (B6)
☐	High Water Table (A2)	☐	Aquatic Invertebrates (B13)	☐	Sparsely Vegetated Concave Surface (B8)
☐	Saturation (A3)	☐	Hydrogen Sulfide Odor (C1)	☐	Drainage Patterns (B10)
☐	Water Marks (B1)	☒	Dry-Season Water Table (C2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
☐	Sediment Deposits (B2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)	☐	Crayfish Burrows (C8)
☐	Drift Deposits (B3)	☐	Presence of Reduced Iron (C4)	☐	Saturation Visible on Aerial Imagery (C9)
☐	Algal Mat or Crust (B4)	☐	Thin Muck Surface (C7)	☒	Geomorphic Position (D2)
☐	Iron Deposits (B5)	☐	Other (Explain in Remarks)	☒	FAC-Neutral Test (D5)
☒	Inundation Visible on Aerial Imagery (B7)			☐	Frost-Heave Hummocks (D7) (**LRR F**)
☐	Water-Stained Leaves (B9)				

Field Observations:

Surface Water Present?	☐ Yes ☒ No	Depth (inches):	**Water Hydrology Present?** ☒ Yes ☐ No
Water Table Present?	☒ Yes ☐ No	Depth (inches): 14	
Saturation Present? (includes capillary fringe)	☒ Yes ☐ No	Depth (inches): 13	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Surface water present in wetland but not at plot.

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Brady Wind I		City/County: Stark	Sampling Date: 10/24/15
Applicant/Owner: Nextera		State: North Dakota	Sampling Point: BR-WT-5B
Investigator(s): S Yarbrough, R Sparhawk		Section, Township, Range:	
Landform (hillslope, terrace, etc.): swale		Local relief (concave, convex, none) concave	Slope (%): 1
Subregion (LRR): F	Lat: 46.65743	Long: -102.677	Datum: 84
Soil Map Unit Name: Grail - Savage		NWI Classification: none mapped	
Are climatic/hydrologic conditions on the site typical for this time of year?		Yes ☒ No ☐ (if no, explain in Remarks)	
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?		Are "normal circumstances" present?	Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If necessary, explain any answers in Remarks.)			

SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☒ Yes ☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes** ☐ **No**
Hydric Soil Present?	☒ Yes ☐ No		
Wetland Hydrology Present?	☒ Yes ☐ No		

Remarks: Photos 8054 (SE; 8055 (N)

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	**Dominance Test worksheet:**	
1. Populus deltoides	10	yes	FAC	Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–):	3 (A)
2. Picea pungens	<5	yes	FAC	Total Number of Dominant Species Across All Strata:	3 (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)
4.				**Prevalence Index worksheet:**	
		= Total Cover		Total % Cover of:	Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species	x 1 =
1. n/a				FACW species 100	x 2 = 200
2.				FAC species 15	x 3 = 45
3.				FACU species	x 4 =
4.				UPL species	x 5 =
5.				Column Totals: 115 (A)	245 (B)
	100	= Total Cover		Prevalence Index = B/A =	245/115 = 2.13
Herb Stratum (Plot size: 5'')				**Hydrophytic Vegetation Indicators:**	
1. Phalaris arundinacea	100	yes	FACW	☐ 1. Rapid Test for Hydrophytic Vegetation	
2.				☒ 2. Dominance Test is >50%	
3.				☒ 3. Prevalence Index is ≤3.0[1]	
4.				☐ 4. Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)	
5.				☐ Problematic Hydrophytic Vegetation[1] (Explain)	
6.				[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7.					
8.					
9.					
	100	= Total Cover			
Woody Vine Stratum (Plot size: 30')				**Hydrophytic Vegetation Present?**	☒ **Yes** ☐ **No**
1. n/a					
		= Total Cover			
% Bare Ground in Herb Stratum: 0					

Remarks: Other areas in this long thin swale wetland have Typha latifolia, Phleum pratense, Eleocharis palustris, Rumex crispus, Spartina pectinata, Poa sp., Pascopyrum smithii, Bromus inermis, and Hordeum jubatum.

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: BR-WT-5B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-4	10 YR 2/1	100					silt loam	
4-14	10 YR 3/1	95	7.5 YR 4/6	5	C	M/PL	clay loam	moist
14-20	2.5 Y 5/2	80	10 YR 4/6	15	C	M	clay	moist
			Gley1 2.5/N	5	C	M	clay	

[1] Type: C=Concentration; D=Depletion; RM=Reduced Matrix; CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining; M=Matrix

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted.)				**Indicators for Problematic Hydric Soils [3]:**	
☐	Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐	1 cm Muck (A9) (**LRR I, J**)
☐	Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐	Coast Prairie Redox A16) (**LRR F, G, H**)
☐	Black Histic (A3)	☐	Stripped Matrix (S6)	☐	Dark Surface (S7) (**LRR G**)
☐	Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1)	☐	High Plains Depressions (F16) (**LRR H outside of MLRA 72 and 73**)
☐	Stratified Layers (A5) (**LRR F**)	☐	Loamy Gleyed Matrix (F2)	☐	Reduced Vertic (F18)
☐	1 cm Muck (A9) (**LRR F, G, H**)	☐	Depleted Matrix (F3)	☐	Red Parent Material (TF2)
☐	Depleted Below Dark Surface (A11)	☒	Redox Dark Surface (F6)	☐	Very Shallow Dark Surface (TF12)
☒	Thick Dark Surface (A12)	☐	Depleted Dark Surface (F7)	☐	Other (Explain in Remarks)
☐	Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)	[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
☐	2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)	☐	High Plains Depressions (F16) (**MLRA 72 and 73 of LRR H**)		
☐	5 cm Mucky Peat or Peat (S3) (**LRR F**)				

Restrictive Layer (if present):		
Type:	**Hydric Soil Present?**	☒ Yes ☐ No
Depth (inches):		

Remarks: Photos 8056 (soil closeup); 8057 (soil on shovel)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (minimum of two required)	
☐	Surface Water (A1)	☐	Salt Crust (B11)	☐	Surface Soil Cracks (B6)
☐	High Water Table (A2)	☐	Aquatic Invertebrates (B13)	☐	Sparsely Vegetated Concave Surface (B8)
☐	Saturation (A3)	☐	Hydrogen Sulfide Odor (C1)	☐	Drainage Patterns (B10)
☐	Water Marks (B1)	☐	Dry-Season Water Table (C2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
☐	Sediment Deposits (B2)	☒	Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)	☐	Crayfish Burrows (C8)
☐	Drift Deposits (B3)	☐	Presence of Reduced Iron (C4)	☒	Saturation Visible on Aerial Imagery (C9)
☐	Algal Mat or Crust (B4)	☐	Thin Muck Surface (C7)	☒	Geomorphic Position (D2)
☐	Iron Deposits (B5)	☐	Other (Explain in Remarks)	☒	FAC-Neutral Test (D5)
☐	Inundation Visible on Aerial Imagery (B7)			☐	Frost-Heave Hummocks (D7) (**LRR F**)
☐	Water-Stained Leaves (B9)				

Field Observations:				
Surface Water Present?	☐ Yes ☒ No	Depth (inches):	**Water Hydrology Present?**	☒ Yes ☐ No
Water Table Present?	☐ Yes ☒ No	Depth (inches):		
Saturation Present? (includes capillary fringe)	☐ Yes ☒ No	Depth (inches): moist		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Photos 8058 (SE); 8059 (N) = geomorphic shots

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Brady Wind I		City/County: Dickinson/Stark	Sampling Date: 10/25/15
Applicant/Owner: Nextera		State: North Dakota	Sampling Point: BR-WT-6A
Investigator(s): K Brimacombe, A Bensted		Section, Township, Range: S32 T137N R97W	
Landform (hillslope, terrace, etc.): swale		Local relief (concave, convex, none) concave	Slope (%): 1
Subregion (LRR): LRR F	Lat: 46.6352618	Long: -102.9425254	Datum: 84
Soil Map Unit Name:		NWI Classification: none, but mapped as NHD channel	
Are climatic/hydrologic conditions on the site typical for this time of year?		Yes ☒ No ☐ (if no, explain in Remarks)	
Are Vegetation ☒, Soil ☐, or Hydrology ☐ significantly disturbed?		Are "normal circumstances" present?	Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If necessary, explain any answers in Remarks.)			

SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☒ Yes ☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes** ☐ **No**
Hydric Soil Present?	☒ Yes ☐ No		
Wetland Hydrology Present?	☒ Yes ☐ No		

Remarks: Relatively indistinct swale in plowed canola field. Problematic vegetation but hydric soils and hydro indicators present. Topography used to map wetland.

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	**Dominance Test worksheet:**	
1. n/a				Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–):	0 (A)
2.				Total Number of Dominant Species Across All Strata:	2 (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	0 (A/B)
4.				**Prevalence Index worksheet:**	
		= Total Cover		Total % Cover of:	Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species	x 1 =
1. n/a				FACW species	x 2 =
2.				FAC species	x 3 =
3.				FACU species	x 4 =
4.				UPL species	x 5 =
5.				Column Totals: (A)	(B)
		= Total Cover		Prevalence Index = B/A =	
Herb Stratum (Plot size: 5')				**Hydrophytic Vegetation Indicators:**	
1. Canola (Brassica rapa?)	50	yes	NI	☐ 1. Rapid Test for Hydrophytic Vegetation	
2. Triticum aestivum	50	yes	NI	☐ 2. Dominance Test is >50%	
3.				☐ 3. Prevalence Index is ≤3.0[1]	
4.				☐ 4. Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)	
5.				☒ Problematic Hydrophytic Vegetation[1] (Explain)	
6.				[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7.					
8.					
9.					
	100	= Total Cover			
Woody Vine Stratum (Plot size: 30')				**Hydrophytic Vegetation Present?**	☒ **Yes** ☐ **No**
1.					
		= Total Cover			
% Bare Ground in Herb Stratum: 0					

Remarks: Sample plot located in plowed canola wheat field. However, hydric soils and hydrology indicators present. Plot also located in topographical low point.

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: BR-WT-6A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-6	10 YR 2/1	100					sandy loam	
6-18	10 YR 3/1	15	5 YR 3/3	85	C	M	sandy loam	
18-20	10 YR 5/1	15	7.5 YR 5/8	85	C	M		

[1] Type: C=Concentration; D=Depletion; RM=Reduced Matrix; CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining; M=Matrix

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted.)				**Indicators for Problematic Hydric Soils [3]:**	
☐	Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐	1 cm Muck (A9) (**LRR I, J**)
☐	Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐	Coast Prairie Redox A16) (**LRR F, G, H**)
☐	Black Histic (A3)	☐	Stripped Matrix (S6)	☐	Dark Surface (S7) (**LRR G**)
☐	Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1)	☐	High Plains Depressions (F16) (**LRR H outside of MLRA 72 and 73**)
☐	Stratified Layers (A5) (**LRR F**)	☐	Loamy Gleyed Matrix (F2)	☐	Reduced Vertic (F18)
☐	1 cm Muck (A9) (**LRR F, G, H**)	☐	Depleted Matrix (F3)	☐	Red Parent Material (TF2)
☐	Depleted Below Dark Surface (A11)	☒	Redox Dark Surface (F6)	☐	Very Shallow Dark Surface (TF12)
☐	Thick Dark Surface (A12)	☐	Depleted Dark Surface (F7)	☐	Other (Explain in Remarks)
☐	Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)	[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
☐	2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)	☐	High Plains Depressions (F16) (**MLRA 72 and 73 of LRR H**)		
☐	5 cm Mucky Peat or Peat (S3) (**LRR F**)				

Restrictive Layer (if present):		
Type:	**Hydric Soil Present?**	☒ Yes ☐ No
Depth (inches):		

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (minimum of two required)	
☐	Surface Water (A1)	☐	Salt Crust (B11)	☐	Surface Soil Cracks (B6)
☐	High Water Table (A2)	☐	Aquatic Invertebrates (B13)	☐	Sparsely Vegetated Concave Surface (B8)
☐	Saturation (A3)	☐	Hydrogen Sulfide Odor (C1)	☒	Drainage Patterns (B10)
☐	Water Marks (B1)	☐	Dry-Season Water Table (C2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
☐	Sediment Deposits (B2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)	☐	Crayfish Burrows (C8)
☐	Drift Deposits (B3)	☐	Presence of Reduced Iron (C4)	☒	Saturation Visible on Aerial Imagery (C9)
☐	Algal Mat or Crust (B4)	☐	Thin Muck Surface (C7)	☒	Geomorphic Position (D2)
☐	Iron Deposits (B5)	☐	Other (Explain in Remarks)	☐	FAC-Neutral Test (D5)
☐	Inundation Visible on Aerial Imagery (B7)			☐	Frost-Heave Hummocks (D7) (**LRR F**)
☐	Water-Stained Leaves (B9)				

Field Observations:			**Water Hydrology Present?**	
Surface Water Present?	☐ Yes ☒ No	Depth (inches):		☒ Yes ☐ No
Water Table Present?	☐ Yes ☒ No	Depth (inches):		
Saturation Present? (includes capillary fringe)	☐ Yes ☒ No	Depth (inches):		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrology did not exhibit primary hydrology indicators, however, sample plots dug outside of growing season. Sampling during growing season recommended to confirm hydrology.

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Brady Wind I		City/County: Stark	Sampling Date: 10/24/15
Applicant/Owner: Nextera		State: North Dakota	Sampling Point: BR-WT-6B
Investigator(s): S Yarbrough, R Sparhawk		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none) concave	Slope (%): 1
Subregion (LRR): F	Lat: 46.63377	Long: -102.726	Datum: 84
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year?		Yes ☒ No ☐ (if no, explain in Remarks)	
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?		Are "normal circumstances" present?	Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If necessary, explain any answers in Remarks.)			

SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☒ Yes ☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes** ☐ **No**
Hydric Soil Present?	☒ Yes ☐ No		
Wetland Hydrology Present?	☒ Yes ☐ No		

Remarks: Photos 8067 (veg closeup); 8068 (wetland vegetation). The majority of this somewhat large palustrine emergency wetland is farmed, so the true margins are hard to map!

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	**Dominance Test worksheet:**	
1. n/a				Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–):	3 (A)
2.				Total Number of Dominant Species Across All Strata:	3 (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)
4. American plum outside 30' (36')				**Prevalence Index worksheet:**	
		= Total Cover		Total % Cover of:	Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species 50	x 1 = 50
1. n/a				FACW species 50	x 2 = 100
2.				FAC species	x 3 =
3.				FACU species	x 4 =
4.				UPL species	x 5 =
5.				Column Totals: 100 (A)	150 (B)
		= Total Cover		Prevalence Index = B/A =	150/100 = 1.5
Herb Stratum (Plot size: 5')				**Hydrophytic Vegetation Indicators:**	
1. Typha latifolia	20	yes	OBL	☒ 1. Rapid Test for Hydrophytic Vegetation	
2. Hordeum jubatum	50	yes	FACW	☒ 2. Dominance Test is >50%	
3. Eleocharis palustris	30	yes	OBL	☒ 3. Prevalence Index is ≤3.0[1]	
4.				☐ 4. Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)	
5.				☐ Problematic Hydrophytic Vegetation[1] (Explain)	
6.				[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7.					
8.					
9.					
	100	= Total Cover			
Woody Vine Stratum (Plot size: 30')				**Hydrophytic Vegetation Present?**	☒ **Yes** ☐ **No**
1. n/a					
		= Total Cover			
% Bare Ground in Herb Stratum: 0					

Remarks: There is also Rumex crispus, Echinochloa crus-galli, Juncus interior

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: BR-WT-6B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-6	10 YR 3/2	95	7.5 YR 4/6	5	C	M/PL	silt loam	moist
6-20	2.5 Y 4/2	60	2.5 YR 5/3	30	C	M	clay loam	moist
			7.5 YR 4/6	10	C	M		moist

[1] Type: C=Concentration; D=Depletion; RM=Reduced Matrix; CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining; M=Matrix

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted.)				**Indicators for Problematic Hydric Soils [3]:**	
☐	Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐	1 cm Muck (A9) (**LRR I, J**)
☐	Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐	Coast Prairie Redox A16) (**LRR F, G, H**)
☐	Black Histic (A3)	☐	Stripped Matrix (S6)	☐	Dark Surface (S7) (**LRR G**)
☐	Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1)	☐	High Plains Depressions (F16) (**LRR H outside of MLRA 72 and 73**)
☐	Stratified Layers (A5) (**LRR F**)	☐	Loamy Gleyed Matrix (F2)	☐	Reduced Vertic (F18)
☐	1 cm Muck (A9) (**LRR F, G, H**)	☐	Depleted Matrix (F3)	☐	Red Parent Material (TF2)
☒	Depleted Below Dark Surface (A11)	☒	Redox Dark Surface (F6)	☐	Very Shallow Dark Surface (TF12)
☐	Thick Dark Surface (A12)	☐	Depleted Dark Surface (F7)	☐	Other (Explain in Remarks)
☐	Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)	[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
☐	2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)	☐	High Plains Depressions (F16) (**MLRA 72 and 73 of LRR H**)		
☐	5 cm Mucky Peat or Peat (S3) (**LRR F**)				

Restrictive Layer (if present):		
Type:	**Hydric Soil Present?**	☒ Yes ☐ No
Depth (inches):		

Remarks: Moist soil throughout column

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (minimum of two required)	
☐	Surface Water (A1)	☐	Salt Crust (B11)	☐	Surface Soil Cracks (B6)
☐	High Water Table (A2)	☐	Aquatic Invertebrates (B13)	☐	Sparsely Vegetated Concave Surface (B8)
☐	Saturation (A3)	☐	Hydrogen Sulfide Odor (C1)	☐	Drainage Patterns (B10)
☐	Water Marks (B1)	☐	Dry-Season Water Table (C2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
☐	Sediment Deposits (B2)	☒	Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)	☐	Crayfish Burrows (C8)
☐	Drift Deposits (B3)	☐	Presence of Reduced Iron (C4)	☒	Saturation Visible on Aerial Imagery (C9)
☐	Algal Mat or Crust (B4)	☐	Thin Muck Surface (C7)	☒	Geomorphic Position (D2)
☐	Iron Deposits (B5)	☐	Other (Explain in Remarks)	☒	FAC-Neutral Test (D5)
☐	Inundation Visible on Aerial Imagery (B7)			☐	Frost-Heave Hummocks (D7) (**LRR F**)
☐	Water-Stained Leaves (B9)				

Field Observations:				
Surface Water Present?	☐ Yes ☒ No	Depth (inches):	**Water Hydrology Present?**	☒ Yes ☐ No
Water Table Present?	☐ Yes ☒ No	Depth (inches):		
Saturation Present? (includes capillary fringe)	☐ Yes ☐ No	Depth (inches):		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: At this sample plot location, there is a defined channel, but not over most of this wetland.

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Brady Wind I		City/County: Dickinson/Stark	Sampling Date: 10/25/15
Applicant/Owner: Nextera		State: North Dakota	Sampling Point: BR-WT-7A
Investigator(s): K Brimacombe, A Bensted		Section, Township, Range: Sections 33 and 34, T137N, R97W	
Landform (hillslope, terrace, etc.): drainage between hillslopes		Local relief (concave, convex, none) convex	Slope (%): 1-2
Subregion (LRR): LRR F	Lat: 46.6374050	Long: -102.9150753	Datum: 84
Soil Map Unit Name:		NWI Classification: none	
Are climatic/hydrologic conditions on the site typical for this time of year?		Yes ☒ No ☐ (if no, explain in Remarks)	
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?		Are "normal circumstances" present?	Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If necessary, explain any answers in Remarks.)			

SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☒ Yes ☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes** ☐ **No**
Hydric Soil Present?	☒ Yes ☐ No		
Wetland Hydrology Present?	☒ Yes ☐ No		

Remarks: Meandering swale PEM wetland between two plowed soybean fields. Extends to NNW outside of survey corridor. Wetland mapped using topography and vegetation.

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	**Dominance Test worksheet:**	
1. n/a				Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–):	1 (A)
2.				Total Number of Dominant Species Across All Strata:	1 (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)
4.				**Prevalence Index worksheet:**	
		= Total Cover		Total % Cover of:	Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species	x 1 =
1. n/a				FACW species	x 2 =
2.				FAC species	x 3 =
3.				FACU species	x 4 =
4.				UPL species	x 5 =
5.				Column Totals: (A)	(B)
		= Total Cover		Prevalence Index = B/A =	
Herb Stratum (Plot size: 5')				**Hydrophytic Vegetation Indicators:**	
1. Echinochloa crus-gallii	40	yes	FAC	☐ 1. Rapid Test for Hydrophytic Vegetation	
2. Rumex sp.	15			☒ 2. Dominance Test is >50%	
3. Typha sp.	15			☐ 3. Prevalence Index is ≤3.0[1]	
4. Eleocharis sp.	15			☐ 4. Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)	
5. Medicago sativa	2		UPL	☐ Problematic Hydrophytic Vegetation[1] (Explain)	
6. Hordeum jubatum	2		FACW	[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7.					
8.					
9.					
	89	= Total Cover			
Woody Vine Stratum (Plot size: 30')				**Hydrophytic Vegetation Present?**	☒ **Yes** ☐ **No**
1. n/a					
		= Total Cover			
% Bare Ground in Herb Stratum: 11					

Remarks: Typha, Eleocharis, and Rumex not identifiable to sp. due to time of year.

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: BR-WT-7A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-15	10 YR 2/2	80	2.5 YR 3/6	20	C	M/PL	sandy clay loam	

[1] Type: C=Concentration; D=Depletion; RM=Reduced Matrix; CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining; M=Matrix

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted.)				**Indicators for Problematic Hydric Soils [3]:**	
☐	Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐	1 cm Muck (A9) (**LRR I, J**)
☐	Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐	Coast Prairie Redox A16) (**LRR F, G, H**)
☐	Black Histic (A3)	☐	Stripped Matrix (S6)	☐	Dark Surface (S7) (**LRR G**)
☐	Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1)	☐	High Plains Depressions (F16) (**LRR H outside of MLRA 72 and 73**)
☐	Stratified Layers (A5) (**LRR F**)	☐	Loamy Gleyed Matrix (F2)	☐	Reduced Vertic (F18)
☐	1 cm Muck (A9) (**LRR F, G, H**)	☐	Depleted Matrix (F3)	☐	Red Parent Material (TF2)
☐	Depleted Below Dark Surface (A11)	☒	Redox Dark Surface (F6)	☐	Very Shallow Dark Surface (TF12)
☐	Thick Dark Surface (A12)	☐	Depleted Dark Surface (F7)	☐	Other (Explain in Remarks)
☐	Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)	[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
☐	2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)	☐	High Plains Depressions (F16) (**MLRA 72 and 73 of LRR H**)		
☐	5 cm Mucky Peat or Peat (S3) (**LRR F**)				

Restrictive Layer (if present):		
Type:	**Hydric Soil Present?**	☒ Yes ☐ No
Depth (inches):		

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (minimum of two required)	
☐	Surface Water (A1)	☐	Salt Crust (B11)	☒	Surface Soil Cracks (B6)
☐	High Water Table (A2)	☐	Aquatic Invertebrates (B13)	☐	Sparsely Vegetated Concave Surface (B8)
☐	Saturation (A3)	☐	Hydrogen Sulfide Odor (C1)	☒	Drainage Patterns (B10)
☐	Water Marks (B1)	☐	Dry-Season Water Table (C2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
☐	Sediment Deposits (B2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)	☐	Crayfish Burrows (C8)
☐	Drift Deposits (B3)	☐	Presence of Reduced Iron (C4)	☐	Saturation Visible on Aerial Imagery (C9)
☐	Algal Mat or Crust (B4)	☐	Thin Muck Surface (C7)	☐	Geomorphic Position (D2)
☒	Iron Deposits (B5)	☐	Other (Explain in Remarks)	☐	FAC-Neutral Test (D5)
☐	Inundation Visible on Aerial Imagery (B7)			☐	Frost-Heave Hummocks (D7) (**LRR F**)
☐	Water-Stained Leaves (B9)				

Field Observations:				
Surface Water Present?	☐ Yes ☒ No	Depth (inches):	**Water Hydrology Present?**	☒ Yes ☐ No
Water Table Present?	☐ Yes ☒ No	Depth (inches):		
Saturation Present? (includes capillary fringe)	☐ Yes ☒ No	Depth (inches):		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Iron deposits on surface 5 YR 4/6. Wetland located in drainage feature mapped by NHD.

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Brady Wind I		City/County: Stark	Sampling Date: 10/25/15
Applicant/Owner: Nextera		State: North Dakota	Sampling Point: BR-WT-7B
Investigator(s): S Yarbrough, R Sparhawk		Section, Township, Range:	
Landform (hillslope, terrace, etc.): Kettle pond depressional		Local relief (concave, convex, none) concave	Slope (%): 2
Subregion (LRR): F	Lat: 46.66219	Long: -102.78	Datum: 84
Soil Map Unit Name: Harriet-Regan		NWI Classification: yes	
Are climatic/hydrologic conditions on the site typical for this time of year?		Yes ☒ No ☐ (if no, explain in Remarks)	
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?		Are "normal circumstances" present?	Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If necessary, explain any answers in Remarks.)			

SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☒ Yes ☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes** ☐ **No**
Hydric Soil Present?	☒ Yes ☐ No		
Wetland Hydrology Present?	☒ Yes ☐ No		

Remarks: Isolated (Kettle)

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	**Dominance Test worksheet:**	
1. n/a				Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–):	2 (A)
2.				Total Number of Dominant Species Across All Strata:	2 (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)
4.				**Prevalence Index worksheet:**	
		= Total Cover		Total % Cover of:	Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species 40	x 1 = 40
1. n/a				FACW species 40	x 2 = 80
2.				FAC species	x 3 =
3.				FACU species	x 4 =
4.				UPL species	x 5 =
5.				Column Totals: 80 (A)	120 (B)
		= Total Cover		Prevalence Index = B/A =	120/80 = 1.5
Herb Stratum (Plot size: 5')				**Hydrophytic Vegetation Indicators:**	
1. Eleocharis palustris	40	yes	OBL	☒	1. Rapid Test for Hydrophytic Vegetation
2. Hordeum jubatum	40	yes	FACW	☒	2. Dominance Test is >50%
3.				☒	3. Prevalence Index is ≤3.0[1]
4.				☐	4. Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
5.				☐	Problematic Hydrophytic Vegetation[1] (Explain)
6.				[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7.					
8.					
9.					
		= Total Cover			
Woody Vine Stratum (Plot size: 30')				**Hydrophytic Vegetation Present?**	☒ **Yes** ☐ **No**
1.					
		= Total Cover			
% Bare Ground in Herb Stratum: 20					
Remarks:					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: BR-WT-7B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-12	10 YR 4/1	90	7.5 YR 4/6	10	C	M/PL	clay loam	

[1] Type: C=Concentration; D=Depletion; RM=Reduced Matrix; CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining; M=Matrix

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted.)

☐	Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐	1 cm Muck (A9) (**LRR I, J**)
☐	Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐	Coast Prairie Redox A16) (**LRR F, G, H**)
☐	Black Histic (A3)	☐	Stripped Matrix (S6)	☐	Dark Surface (S7) (**LRR G**)
☐	Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1)	☐	High Plains Depressions (F16) (**LRR H outside of MLRA 72 and 73**)
☐	Stratified Layers (A5) (**LRR F**)	☐	Loamy Gleyed Matrix (F2)	☐	Reduced Vertic (F18)
☐	1 cm Muck (A9) (**LRR F, G, H**)	☒	Depleted Matrix (F3)	☐	Red Parent Material (TF2)
☐	Depleted Below Dark Surface (A11)	☐	Redox Dark Surface (F6)	☐	Very Shallow Dark Surface (TF12)
☐	Thick Dark Surface (A12)	☐	Depleted Dark Surface (F7)	☐	Other (Explain in Remarks)
☐	Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)		[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
☐	2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)	☐	High Plains Depressions (F16) (**MLRA 72 and 73 of LRR H**)		
☐	5 cm Mucky Peat or Peat (S3) (**LRR F**)				

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

☐	Surface Water (A1)	☐	Salt Crust (B11)	☐	Surface Soil Cracks (B6)
☐	High Water Table (A2)	☐	Aquatic Invertebrates (B13)	☐	Sparsely Vegetated Concave Surface (B8)
☒	Saturation (A3)	☐	Hydrogen Sulfide Odor (C1)	☐	Drainage Patterns (B10)
☐	Water Marks (B1)	☐	Dry-Season Water Table (C2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
☐	Sediment Deposits (B2)	☒	Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)	☐	Crayfish Burrows (C8)
☐	Drift Deposits (B3)	☐	Presence of Reduced Iron (C4)	☒	Saturation Visible on Aerial Imagery (C9)
☐	Algal Mat or Crust (B4)	☐	Thin Muck Surface (C7)	☒	Geomorphic Position (D2)
☐	Iron Deposits (B5)	☐	Other (Explain in Remarks)	☒	FAC-Neutral Test (D5)
☐	Inundation Visible on Aerial Imagery (B7)			☐	Frost-Heave Hummocks (D7) (**LRR F**)
☐	Water-Stained Leaves (B9)				

Field Observations:

Surface Water Present?	☐ Yes ☒ No	Depth (inches):	**Water Hydrology Present?** ☒ Yes ☐ No
Water Table Present?	☐ Yes ☒ No	Depth (inches):	
Saturation Present? (includes capillary fringe)	☒ Yes ☐ No	Depth (inches): 0	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Brady Wind I		City/County: Stark	Sampling Date: 10/25/15
Applicant/Owner: Nextera		State: North Dakota	Sampling Point: BR-WT-8B
Investigator(s): S Yarbrough, R Sparhawk		Section, Township, Range:	
Landform (hillslope, terrace, etc.): channel, floodplain		Local relief (concave, convex, none) concave	Slope (%): 1
Subregion (LRR): F	Lat: 46.64549	Long: -102.855	Datum: 84
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year?		Yes ☒ No ☐ (if no, explain in Remarks)	
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?		Are "normal circumstances" present?	Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If necessary, explain any answers in Remarks.)			

SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☒ Yes ☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes** ☐ **No**
Hydric Soil Present?	☒ Yes ☐ No		
Wetland Hydrology Present?	☒ Yes ☐ No		

Remarks: Palustrine emergent wetland in what amounts to a wide stream channel. More wetland than stream in character.

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. n/a			
2.			
3.			
4.			
		= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. n/a			
2.			
3.			
4.			
5.			
		= Total Cover	
Herb Stratum (Plot size: 5')			
1. Schoenoplectus pungens	20	yes	OBL
2. Juncus balticus	30	yes	FACW
3. Spartina pectinata	20	yes	FACW
4. Carex pellita	30	yes	OBL
5.			
6.			
7.			
8.			
9.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30')			
1. n/a			
		= Total Cover	
% Bare Ground in Herb Stratum: 0			

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–):	4 (A)
Total Number of Dominant Species Across All Strata:	4 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 50	x 1 = 50
FACW species 50	x 2 = 100
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: 100 (A)	150 (B)
Prevalence Index = B/A =	150/100 = 1.5

Hydrophytic Vegetation Indicators:

☒	1. Rapid Test for Hydrophytic Vegetation
☒	2. Dominance Test is >50%
☒	3. Prevalence Index is ≤3.0[1]
☐	4. Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☐	Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present?	☒ **Yes** ☐ **No**

Remarks:

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: BR-WT-8B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-12	10 YR 2/1	65	7.5 YR 4/6	15	C	M/PL	silt	
			10 YR 4/1	10	D	M		
			Gley 1 2.5/N	10	C	M		

[1] Type: C=Concentration; D=Depletion; RM=Reduced Matrix; CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining; M=Matrix

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted.)

☐	Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐	1 cm Muck (A9) (**LRR I, J**)
☐	Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐	Coast Prairie Redox A16) (**LRR F, G, H**)
☐	Black Histic (A3)	☐	Stripped Matrix (S6)	☐	Dark Surface (S7) (**LRR G**)
☐	Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1)	☐	High Plains Depressions (F16) (**LRR H outside of MLRA 72 and 73**)
☐	Stratified Layers (A5) (**LRR F**)	☐	Loamy Gleyed Matrix (F2)	☐	Reduced Vertic (F18)
☐	1 cm Muck (A9) (**LRR F, G, H**)	☐	Depleted Matrix (F3)	☐	Red Parent Material (TF2)
☐	Depleted Below Dark Surface (A11)	☒	Redox Dark Surface (F6)	☐	Very Shallow Dark Surface (TF12)
☐	Thick Dark Surface (A12)	☐	Depleted Dark Surface (F7)	☐	Other (Explain in Remarks)
☐	Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)		[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
☐	2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)	☐	High Plains Depressions (F16) (**MLRA 72 and 73 of LRR H**)		
☐	5 cm Mucky Peat or Peat (S3) (**LRR F**)				

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

Remarks: soil plot within narrow flood

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (minimum of two required)	
☒	Surface Water (A1)	☐	Salt Crust (B11)	☐	Surface Soil Cracks (B6)
☒	High Water Table (A2)	☐	Aquatic Invertebrates (B13)	☐	Sparsely Vegetated Concave Surface (B8)
☒	Saturation (A3)	☐	Hydrogen Sulfide Odor (C1)	☒	Drainage Patterns (B10)
☐	Water Marks (B1)	☐	Dry-Season Water Table (C2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
☐	Sediment Deposits (B2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)	☐	Crayfish Burrows (C8)
☐	Drift Deposits (B3)	☐	Presence of Reduced Iron (C4)	☒	Saturation Visible on Aerial Imagery (C9)
☐	Algal Mat or Crust (B4)	☐	Thin Muck Surface (C7)	☒	Geomorphic Position (D2)
☐	Iron Deposits (B5)	☐	Other (Explain in Remarks)	☒	FAC-Neutral Test (D5)
☐	Inundation Visible on Aerial Imagery (B7)			☐	Frost-Heave Hummocks (D7) (**LRR F**)
☐	Water-Stained Leaves (B9)				

Field Observations:

Surface Water Present?	☒ Yes ☐ No	Depth (inches): 2	**Water Hydrology Present?** ☒ Yes ☐ No
Water Table Present?	☒ Yes ☐ No	Depth (inches): 0	
Saturation Present? (includes capillary fringe)	☒ Yes ☐ No	Depth (inches): 0	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Brady Wind I		City/County: Stark	Sampling Date: 10/25/15
Applicant/Owner: Nextera		State: North Dakota	Sampling Point: BR-WT-9B
Investigator(s): S Yarbrough, R Sparhawk		Section, Township, Range:	
Landform (hillslope, terrace, etc.): depression		Local relief (concave, convex, none) concave	Slope (%): 1
Subregion (LRR): F	Lat: 46.64806	Long: -102.852	Datum: 84
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year?		Yes ☒ No ☐ (if no, explain in Remarks)	
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?		Are "normal circumstances" present?	Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If necessary, explain any answers in Remarks.)			

SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☒ Yes ☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes** ☐ **No**
Hydric Soil Present?	☒ Yes ☐ No		
Wetland Hydrology Present?	☒ Yes ☐ No		

Remarks: Pasture land. Stock pond to the south.

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
		= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. n/a			
2.			
3.			
4.			
5.			
		= Total Cover	
Herb Stratum (Plot size: 5')			
1. Eleocharis palustris	70	yes	OBL
2. Hordeum jubatum	10	no	FACW
3. Juncus balticus	10	no	FACW
4.			
5.			
6.			
7.			
8.			
9.			
	90	= Total Cover	
Woody Vine Stratum (Plot size: 30')			
1. n/a			
		= Total Cover	
% Bare Ground in Herb Stratum: 10			

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–):	1 (A)
Total Number of Dominant Species Across All Strata:	1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 70	x 1 = 70
FACW species 20	x 2 = 40
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: 90 (A)	110 (B)
Prevalence Index = B/A =	110/90 = 1.22

Hydrophytic Vegetation Indicators:

☒	1. Rapid Test for Hydrophytic Vegetation
☒	2. Dominance Test is >50%
☒	3. Prevalence Index is ≤3.0[1]
☐	4. Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☐	Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present?	☒ **Yes** ☐ **No**		

Remarks: clearly dominated by creeping spikerush

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: BR-WT-9B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-10	10 YR 2/2	95	10 YR 5/6	5	C	M	clay loam	
10-20	10 YR 5/2	85	10 YR 3/2	15			clay	

[1] Type: C=Concentration; D=Depletion; RM=Reduced Matrix; CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining; M=Matrix

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted.)				**Indicators for Problematic Hydric Soils [3]:**	
☐	Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐	1 cm Muck (A9) (**LRR I, J**)
☐	Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐	Coast Prairie Redox A16) (**LRR F, G, H**)
☐	Black Histic (A3)	☐	Stripped Matrix (S6)	☐	Dark Surface (S7) (**LRR G**)
☐	Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1)	☐	High Plains Depressions (F16) (**LRR H outside of MLRA 72 and 73**)
☐	Stratified Layers (A5) (**LRR F**)	☐	Loamy Gleyed Matrix (F2)	☐	Reduced Vertic (F18)
☐	1 cm Muck (A9) (**LRR F, G, H**)	☐	Depleted Matrix (F3)	☐	Red Parent Material (TF2)
☒	Depleted Below Dark Surface (A11)	☒	Redox Dark Surface (F6)	☐	Very Shallow Dark Surface (TF12)
☐	Thick Dark Surface (A12)	☐	Depleted Dark Surface (F7)	☐	Other (Explain in Remarks)
☐	Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)	[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
☐	2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)	☐	High Plains Depressions (F16) (**MLRA 72 and 73 of LRR H**)		
☐	5 cm Mucky Peat or Peat (S3) (**LRR F**)				

Restrictive Layer (if present):		
Type:	**Hydric Soil Present?**	☒ Yes ☐ No
Depth (inches):		

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (minimum of two required)	
☐	Surface Water (A1)	☐	Salt Crust (B11)	☒	Surface Soil Cracks (B6)
☐	High Water Table (A2)	☐	Aquatic Invertebrates (B13)	☐	Sparsely Vegetated Concave Surface (B8)
☐	Saturation (A3)	☐	Hydrogen Sulfide Odor (C1)	☐	Drainage Patterns (B10)
☐	Water Marks (B1)	☐	Dry-Season Water Table (C2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
☐	Sediment Deposits (B2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)	☐	Crayfish Burrows (C8)
☐	Drift Deposits (B3)	☐	Presence of Reduced Iron (C4)	☒	Saturation Visible on Aerial Imagery (C9)
☐	Algal Mat or Crust (B4)	☐	Thin Muck Surface (C7)	☒	Geomorphic Position (D2)
☐	Iron Deposits (B5)	☐	Other (Explain in Remarks)	☒	FAC-Neutral Test (D5)
☐	Inundation Visible on Aerial Imagery (B7)			☐	Frost-Heave Hummocks (D7) (**LRR F**)
☐	Water-Stained Leaves (B9)				

Field Observations:			**Water Hydrology Present?**	
Surface Water Present?	☐ Yes ☒ No	Depth (inches):		☒ Yes ☐ No
Water Table Present?	☐ Yes ☒ No	Depth (inches):		
Saturation Present? (includes capillary fringe)	☐ Yes ☒ No	Depth (inches):		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Moist at 3"

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Brady Wind I		City/County: Stark	Sampling Date: 10/25/15
Applicant/Owner: Nextera		State: North Dakota	Sampling Point: BR-WT-10B
Investigator(s): S Yarbrough, R Sparhawk		Section, Township, Range:	
Landform (hillslope, terrace, etc.): depression		Local relief (concave, convex, none)	Slope (%): 2
Subregion (LRR): F	Lat: 46.65565	Long: -102.837	Datum: 84
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year?		Yes ☒ No ☐ (if no, explain in Remarks)	
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?		Are "normal circumstances" present?	Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If necessary, explain any answers in Remarks.)			

SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	☒ Yes ☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes** ☐ **No**
Hydric Soil Present?	☒ Yes ☐ No		
Wetland Hydrology Present?	☒ Yes ☐ No		

Remarks: Alkaline depression. Obvious white precipitate on the soil surface.

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	**Dominance Test worksheet:**	
1. n/a				Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC–):	2 (A)
2.				Total Number of Dominant Species Across All Strata:	2 (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)
4.				**Prevalence Index worksheet:**	
		= Total Cover		Total % Cover of:	Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species 40	x 1 = 40
1. n/a				FACW species 20	x 2 = 40
2.				FAC species	x 3 =
3.				FACU species	x 4 =
4.				UPL species	x 5 =
5.				Column Totals: 60 (A)	80 (B)
		= Total Cover		Prevalence Index = B/A =	80/60 = 1.33
Herb Stratum (Plot size: 5')				**Hydrophytic Vegetation Indicators:**	
1. Puccinellia nuttalliana	25	yes	OBL	☒ 1. Rapid Test for Hydrophytic Vegetation	
2. Distichlis spicata	20	yes	FACW	☒ 2. Dominance Test is >50%	
3. Schoenoplectus pungens	5	no	OBL	☒ 3. Prevalence Index is ≤3.0[1]	
4. Triglochin maritima	5	no	OBL	☐ 4. Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)	
5. Salicornia rubra	5	no	OBL	☐ Problematic Hydrophytic Vegetation[1] (Explain)	
6.				[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7.					
8.					
9.					
	60	= Total Cover			
Woody Vine Stratum (Plot size: 30')				**Hydrophytic Vegetation Present?**	☒ **Yes** ☐ **No**
1. n/a					
		= Total Cover			
% Bare Ground in Herb Stratum: 40					

Remarks: Salicornia rubra seems to be the dominant plant out in the middle section of the wetland.

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: BR-WT-10B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-3	10 YR 4/1	80	5 YR 3/4	20	C	M/PL	clay	
3-10	10 YR 5/6	60	10 YR 6/1	40			clay	
10-15	2.5 Y 5/2	90	7.5 YR 4/6	10			clay	

[1] Type: C=Concentration; D=Depletion; RM=Reduced Matrix; CS=Covered or Coated Sand Grains [2] Location: PL=Pore Lining; M=Matrix

Hydric Soil Indicators: (applicable to all LRRs, unless otherwise noted.)				**Indicators for Problematic Hydric Soils [3]:**	
☐	Histosol (A1)	☐	Sandy Gleyed Matrix (S4)	☐	1 cm Muck (A9) (**LRR I, J**)
☐	Histic Epipedon (A2)	☐	Sandy Redox (S5)	☐	Coast Prairie Redox A16) (**LRR F, G, H**)
☐	Black Histic (A3)	☐	Stripped Matrix (S6)	☐	Dark Surface (S7) (**LRR G**)
☐	Hydrogen Sulfide (A4)	☐	Loamy Mucky Mineral (F1)	☐	High Plains Depressions (F16) (**LRR H outside of MLRA 72 and 73**)
☐	Stratified Layers (A5) (**LRR F**)	☐	Loamy Gleyed Matrix (F2)	☐	Reduced Vertic (F18)
☐	1 cm Muck (A9) (**LRR F, G, H**)	☒	Depleted Matrix (F3)	☐	Red Parent Material (TF2)
☐	Depleted Below Dark Surface (A11)	☐	Redox Dark Surface (F6)	☐	Very Shallow Dark Surface (TF12)
☐	Thick Dark Surface (A12)	☐	Depleted Dark Surface (F7)	☐	Other (Explain in Remarks)
☐	Sandy Mucky Mineral (S1)	☐	Redox Depressions (F8)	[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
☐	2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)	☐	High Plains Depressions (F16) (**MLRA 72 and 73 of LRR H**)		
☐	5 cm Mucky Peat or Peat (S3) (**LRR F**)				

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? ☒ Yes ☐ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)				Secondary Indicators (minimum of two required)	
☐	Surface Water (A1)	☒	Salt Crust (B11)	☐	Surface Soil Cracks (B6)
☐	High Water Table (A2)	☐	Aquatic Invertebrates (B13)	☒	Sparsely Vegetated Concave Surface (B8)
☒	Saturation (A3)	☐	Hydrogen Sulfide Odor (C1)	☐	Drainage Patterns (B10)
☐	Water Marks (B1)	☐	Dry-Season Water Table (C2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
☐	Sediment Deposits (B2)	☐	Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)	☐	Crayfish Burrows (C8)
☐	Drift Deposits (B3)	☐	Presence of Reduced Iron (C4)	☒	Saturation Visible on Aerial Imagery (C9)
☐	Algal Mat or Crust (B4)	☐	Thin Muck Surface (C7)	☒	Geomorphic Position (D2)
☐	Iron Deposits (B5)	☐	Other (Explain in Remarks)	☒	FAC-Neutral Test (D5)
☐	Inundation Visible on Aerial Imagery (B7)			☐	Frost-Heave Hummocks (D7) (**LRR F**)
☐	Water-Stained Leaves (B9)				

Field Observations:

Surface Water Present?	☐ Yes ☒ No	Depth (inches):	**Water Hydrology Present?** ☒ Yes ☐ No
Water Table Present?	☐ Yes ☒ No	Depth (inches):	
Saturation Present? (includes capillary fringe)	☒ Yes ☐ No	Depth (inches): 0	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix 3:
Stream Data Forms

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GENERAL ID			
Stream ID BR-STR-1B	Stream Name:		
Lat: 46.6447239	Long: -102.7482279	Date: 10/25/15	
Project Name: Brady Wind I		Client: Nextera	
Investigators: S Yarbrough, R Sparhawk			
Flow Regime: ephemeral	Water Type: NRPW	Photo ID: 2015-10-25 09.39.11.jpg	

CHANNEL FEATURES			
Estimate Measurements		**Stream Erosion**	
Top of Bank Width (feet):	.18 ft average	Stream Erosion:	Moderate
Top of bank Height (feet):		Artificial, Modified, or Channelized:	No
LB (feet):	3	Dam Present:	No
RB (feet):	2	Sinuosity:	High
Water Depth (in.):	0	Gradient:	Flat (0.5-100ft) to Moderate (2-100 ft)
Water Width (feet):	0		
High Water Mark (feet):	3 (not clear; perhaps 1 ft)		

FLOW CHARACTERISTICS				
Water Present:	No water present, stream bed dry	Proportion of Reach Represented by Stream Morphology Types:		
Velocity:	N/A	Riffle (%):	Pool (%):	Run (%):
Turbidity:	N/A			
	Other:			

SUBSTRATE COMPONENTS

Inorganic Substrate Components—Should add to 100%)			Organic Substrate Components—Does not necessarily add to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Reach
Bedrock			Vegetated	Sticks, wood, coarse plant materials (CPOM)	100
Boulder	> 256mm (10”)		Muck–Mud	Black, very fine grain organic	
Cobble	64–256mm (2.5”–10”		Marl	Grey, shell fragments	
Gravel	2–64mm (0.1”–2.5”)				
Sand	0.06–2mm (gritty)				
Silt	0.004–0.06mm				
Clay	< 0.004mm (slick)				

WATERSHED FEATURES				
Predominant Surrounding Land Use:	☐ Forest ☐ Field/Pasture ☒ Agricultural (wheat field on either side) ☐ Commercial	☐ Industrial ☐ Residential Other:		
Indicate the dominant type:	☐ Trees ☐ Shrubs	☒ Grasses ☐ Herbaceous		
Canopy Cover:	Open			
Floodplain Width:	Narrow (less than 16 ft)	Wetland Present:	☐ Yes ☒ No*	Wetland ID:

AQUATIC VEGETATION			
Indicate the dominant type and record the dominant species present:			
☐ Rooted emergent	☐ Rooted submergent	☐ Rooted floating	☐ Free floating
☐ Floating algae	☐ Attached algae	☒ None	

MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OBSERVATIONS AND NOTES

* But there are very minor pockets of sedge and Equisetum within the OHWM (channel bottom). These pockets are very spread out and small.

Deer, pheasant, badger (deep holes in field)

American plum and snowberry on the banks. Dominated by smooth brome.

GENERAL ID			
Stream ID BR-STR-2B	Stream Name:		
Lat: 46.6451352	Long: -102.7986368	Date: 10/25/15	
Project Name: Brady Wind I		Client: Nextera	
Investigators: S Yarbrough, R Sparhawk			
Flow Regime: ephemeral	Water Type: NRPW	Photo ID: 2015-10-25 10.30.18.jpg	

CHANNEL FEATURES			
Estimate Measurements		**Stream Erosion**	
Top of Bank Width (feet):	4	Stream Erosion:	Moderate
Top of bank Height (feet):		Artificial, Modified, or Channelized:	Yes (farmed field)
LB (feet):	1	Dam Present:	No
RB (feet):	1	Sinuosity:	Low
Water Depth (in.):	0	Gradient:	Flat (0.5-100ft)
Water Width (feet):	0		
High Water Mark (feet):	0.5		

FLOW CHARACTERISTICS				
Water Present:	No water present, stream bed dry	Proportion of Reach Represented by Stream Morphology Types:		
Velocity:	N/A	Riffle (%):	Pool (%):	Run (%):
Turbidity:	N/A			
	Other:			

SUBSTRATE COMPONENTS					
Inorganic Substrate Components—Should add to 100%)			**Organic Substrate Components—Does not necessarily add to 100%)**		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Reach
Bedrock			Detritus	Sticks, wood, coarse plant materials (CPOM)	20
Boulder	> 256mm (10”)		Muck–Mud	Black, very fine grain organic	
Cobble	64–256mm (2.5”–10”		Marl	Grey, shell fragments	
Gravel	2–64mm (0.1”–2.5”)	10			
Sand	0.06–2mm (gritty)	30			
Silt	0.004–0.06mm	30			
Clay	< 0.004mm (slick)	30			

WATERSHED FEATURES				
Predominant Surrounding Land Use:	☐ Forest ☐ Field/Pasture ☒ Agricultural ☐ Commercial		☐ Industrial ☐ Residential Other:	
Indicate the dominant type:	☐ Trees ☐ Shrubs		☐ Grasses ☒ Herbaceous	
Canopy Cover:	Open			
Floodplain Width:	Narrow (less than 16 ft)	Wetland Present:	☐ Yes ☒ No	Wetland ID:

AQUATIC VEGETATION			
Indicate the dominant type and record the dominant species present:			
☐ Rooted emergent	☐ Rooted submergent	☐ Rooted floating	☐ Free floating
☐ Floating algae	☐ Attached algae	☐ None	

MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OBSERVATIONS AND NOTES

This is a flax field. Channel is very narrow.

GENERAL ID			
Stream ID BR-STR-3B	Stream Name:		
Lat: 46.6353035	Long: -102.8854268	Date: 10/25/15	
Project Name: Brady Wind I		Client: Nextera	
Investigators: S Yarbrough, R Sparhawk			
Flow Regime: Intermittent	Water Type: NRPW	Photo ID: 2015-10-25 11.35.07.jpg	

CHANNEL FEATURES			
Estimate Measurements		**Stream Erosion**	
Top of Bank Width (feet):	16	Stream Erosion:	Moderate
Top of bank Height (feet):		Artificial, Modified, or Channelized:	No
LB (feet):	3	Dam Present:	No (perhaps downstream)
RB (feet):	3	Sinuosity:	Medium
Water Depth (in.):	6 (standing water)	Gradient:	Flat (0.5-100ft)
Water Width (feet):	5		
High Water Mark (feet):	2		

FLOW CHARACTERISTICS				
Water Present:	Standing water	Proportion of Reach Represented by Stream Morphology Types:		
Velocity:	N/A	Riffle (%):	Pool (%):	Run (%):
Turbidity:	Slightly turbid			
	Other:			

SUBSTRATE COMPONENTS

Inorganic Substrate Components—Should add to 100%)			Organic Substrate Components—Does not necessarily add to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Reach
Bedrock			Detritus	Sticks, wood, coarse plant materials (CPOM)	5
Boulder	> 256mm (10”)		Muck–Mud	Black, very fine grain organic	
Cobble	64–256mm (2.5”–10”		Marl	Grey, shell fragments	
Gravel	2–64mm (0.1”–2.5”)				
Sand	0.06–2mm (gritty)				
Silt	0.004–0.06mm	50			
Clay	< 0.004mm (slick)	50			

WATERSHED FEATURES

Predominant Surrounding Land Use:	☐ Forest ☐ Field/Pasture ☒ Agricultural ☐ Commercial		☐ Industrial ☐ Residential Other:	
Indicate the dominant type:	☐ Trees ☐ Shrubs		☒ Grasses ☐ Herbaceous	
Canopy Cover:	Open			
Floodplain Width:	Choose an item.	Wetland Present:	☒ Yes * ☐ No	Wetland ID:

AQUATIC VEGETATION

Indicate the dominant type and record the dominant species present:

☐ Rooted emergent	☐ Rooted submergent	☐ Rooted floating	☒ Free floating algae bloom
☐ Floating algae	☐ Attached algae	☐ None	

MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OBSERVATIONS AND NOTES

* narrow fringe of sedges and spikerush

Twin culverts 3' CMPs
Spartina pectinata
Eleocharis palustris

GENERAL ID			
Stream ID BR-STR-4B	Stream Name:		
Lat: 46.6313896	Long: -102.8812929	Date: 10/25/15	
Project Name: Brady Wind I		Client: Nextera	
Investigators: S Yarbrough, R Sparhawk			
Flow Regime: intermittent	Water Type: NRPW	Photo ID: 2015-10-25 16.35.39.jpg	

CHANNEL FEATURES			
Estimate Measurements		**Stream Erosion**	
Top of Bank Width (feet):	14	Stream Erosion:	Moderate
Top of bank Height (feet):		Artificial, Modified, or Channelized:	Yes
LB (feet):	2.5	Dam Present:	Yes (just upstream at stock pond BR-POND-5B)
RB (feet):	1.5	Sinuosity:	Medium
Water Depth (in.):	3	Gradient:	Flat (0.5-100ft)
Water Width (feet):	6		
High Water Mark (feet):	0.75		

FLOW CHARACTERISTICS				
Water Present:	Standing water	Proportion of Reach Represented by Stream Morphology Types:		
Velocity:	N/A	Riffle (%):	Pool (%):	Run (%):
Turbidity:	Clear			
	Other:			

SUBSTRATE COMPONENTS

Inorganic Substrate Components—Should add to 100%)			Organic Substrate Components—Does not necessarily add to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Reach
Bedrock			Detritus	Sticks, wood, coarse plant materials (CPOM)	5
Boulder	> 256mm (10”)		Muck–Mud	Black, very fine grain organic	
Cobble	64–256mm (2.5”–10”		Marl	Grey, shell fragments	
Gravel	2–64mm (0.1”–2.5”)				
Sand	0.06–2mm (gritty)				
Silt	0.004–0.06mm	40			
Clay	< 0.004mm (slick)	60			

WATERSHED FEATURES

Predominant Surrounding Land Use:	☐ Forest ☐ Field/Pasture ☒ Agricultural (wheat adjacent) ☐ Commercial	☐ Industrial ☐ Residential Other:
Indicate the dominant type:	☐ Trees ☐ Shrubs	☒ Grasses ☐ Herbaceous
Canopy Cover:	Open	

Floodplain Width:	Narrow (less than 16 ft)	Wetland Present:	☒ Yes narrow fringe (3’ wide) ☐ No	Wetland ID:

AQUATIC VEGETATION

Indicate the dominant type and record the dominant species present:

☒ Rooted emergent	☐ Rooted submergent	☐ Rooted floating	☐ Free floating
☐ Floating algae	☐ Attached algae	☐ None	

MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OBSERVATIONS AND NOTES

GENERAL ID			
Stream ID BR-STR-5B	Stream Name:		
Lat: 46.6320567	Long: -102.8717375	Date: 10/25/15	
Project Name: Brady Wind I		Client: Nextera	
Investigators: S Yarbrough, R Sparhawk			
Flow Regime: ephemeral	Water Type: NRPW	Photo ID: 2015-10-25 17.22.06.jpg	

CHANNEL FEATURES			
Estimate Measurements		**Stream Erosion**	
Top of Bank Width (feet):	14	Stream Erosion:	None
Top of bank Height (feet):		Artificial, Modified, or Channelized:	No
LB (feet):	2	Dam Present:	Yes (just below)
RB (feet):	3.5	Sinuosity:	Low
Water Depth (in.):	0	Gradient:	Flat (0.5-100ft) to Moderate (2ft-100ft)
Water Width (feet):	0		
High Water Mark (feet):	--		

FLOW CHARACTERISTICS				
Water Present:	No water present, stream bed dry	Proportion of Reach Represented by Stream Morphology Types:		
Velocity:	N/A	Riffle (%):	Pool (%):	Run (%):
Turbidity:	N/A			
	Other:			

SUBSTRATE COMPONENTS					
Inorganic Substrate Components—Should add to 100%)			**Organic Substrate Components—Does not necessarily add to 100%)**		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Reach
Bedrock			Detritus	Sticks, wood, coarse plant materials (CPOM)	fully vegetated
Boulder	> 256mm (10”)		Muck–Mud	Black, very fine grain organic	
Cobble	64–256mm (2.5”–10”		Marl	Grey, shell fragments	
Gravel	2–64mm (0.1”–2.5”)				
Sand	0.06–2mm (gritty)				
Silt	0.004–0.06mm	50			
Clay	< 0.004mm (slick)	50			

WATERSHED FEATURES				
Predominant Surrounding Land Use:	☐ Forest ☒ Field/Pasture ☐ Agricultural ☐ Commercial	☐ Industrial ☐ Residential Other:		
Indicate the dominant type:	☐ Trees ☐ Shrubs	☒ Grasses ☐ Herbaceous		
Canopy Cover:	Open			
Floodplain Width:	Narrow (less than 16 ft)	Wetland Present:	☐ Yes ☒ No	Wetland ID:

AQUATIC VEGETATION			
Indicate the dominant type and record the dominant species present:			
☒ Rooted emergent (very minimal)	☐ Rooted submergent	☐ Rooted floating	☐ Free floating
☐ Floating algae	☐ Attached algae	☐ None	

MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OBSERVATIONS AND NOTES

GENERAL ID			
Stream ID BR-STR-1C	Stream Name: Unnamed		
Lat: 46.6345331	Long: -102.8927092	Date: 11/17/2015	
Project Name: Brady Wind I		Client: Nextera	
Investigators: J. Rodriguez, C. Sandow			
Flow Regime: Ephemeral	Water Type:	Photo ID:	

CHANNEL FEATURES			
Estimate Measurements		**Stream Erosion**	
Top of Bank Width (feet):	2	Stream Erosion:	None
Top of bank Height (feet):		Artificial, Modified, or Channelized:	No
LB (feet):	2	Dam Present:	No
RB (feet):	2	Sinuosity:	Low
Water Depth (in.):	N/A	Gradient:	Flat (0.5-100ft)
Water Width (feet):	N/A		
High Water Mark (feet):	2		

FLOW CHARACTERISTICS				
Water Present:	No water present, stream bed dry	Proportion of Reach Represented by Stream Morphology Types:		
Velocity:	N/A	Riffle (%): 0	Pool (%): 0	Run (%): 0
Turbidity:	N/A			
	Other:			

SUBSTRATE COMPONENTS

Inorganic Substrate Components—Should add to 100%)			Organic Substrate Components—Does not necessarily add to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Reach
Bedrock			Detritus	Sticks, wood, coarse plant materials (CPOM)	10
Boulder	> 256mm (10”)		Muck–Mud	Black, very fine grain organic	
Cobble	64–256mm (2.5”–10”		Marl	Grey, shell fragments	
Gravel	2–64mm (0.1”–2.5”)				
Sand	0.06–2mm (gritty)				
Silt	0.004–0.06mm	100			
Clay	< 0.004mm (slick)				

WATERSHED FEATURES				
Predominant Surrounding Land Use:	☐ Forest ☐ Field/Pasture ☒ Agricultural ☐ Commercial		☐ Industrial ☐ Residential Other:	
Indicate the dominant type:	☐ Trees ☐ Shrubs		☐ Grasses ☒ Herbaceous	
Canopy Cover:	N/A			
Floodplain Width:	Narrow (less than 16 ft)	Wetland Present:	☐ Yes but fails soil test ☒ No	Wetland ID:

AQUATIC VEGETATION			
Indicate the dominant type and record the dominant species present:			
☐ Rooted emergent	☐ Rooted submergent	☐ Rooted floating	☐ Free floating
☐ Floating algae	☐ Attached algae	☒ None	

MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OBSERVATIONS AND NOTES

No water in stream bed. Obvious channelized streambed in middle of agricultural field. No wildlife present at time of sampling.

GENERAL ID			
Stream ID BR-STR-1G	Stream Name: Unnamed		
Lat: 46.6367252	Long: -102.9914035	Date: 11/19/2015	
Project Name: Brady Wind I		Client: Nextera	
Investigators: K. Brimacombe, A. Lortie			
Flow Regime: Ephemeral	Water Type: NRPW	Photo ID:	

CHANNEL FEATURES			
Estimate Measurements		**Stream Erosion**	
Top of Bank Width (feet):	7	Stream Erosion:	None
Top of bank Height (feet):		Artificial, Modified, or Channelized:	No
LB (feet):	3.5	Dam Present:	No
RB (feet):	3.5	Sinuosity:	Medium
Water Depth (in.):	N/A	Gradient:	Flat (0.5-100ft)
Water Width (feet):	N/A		
High Water Mark (feet):			

FLOW CHARACTERISTICS				
Water Present:	No water present, stream bed dry	Proportion of Reach Represented by Stream Morphology Types:		
Velocity:	N/A	Riffle (%): 0	Pool (%): 0	Run (%): 0
Turbidity:	N/A			
	Other:			

SUBSTRATE COMPONENTS

Inorganic Substrate Components—Should add to 100%)			Organic Substrate Components—Does not necessarily add to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Reach
Bedrock			Detritus	Sticks, wood, coarse plant materials (CPOM)	
Boulder	> 256mm (10”)		Muck–Mud	Black, very fine grain organic	
Cobble	64–256mm (2.5”–10”	5	Marl	Grey, shell fragments	
Gravel	2–64mm (0.1”–2.5”)				
Sand	0.06–2mm (gritty)				
Silt	0.004–0.06mm	5			
Clay	< 0.004mm (slick)	90			

WATERSHED FEATURES				
Predominant Surrounding Land Use:	☐ Forest ☐ Field/Pasture ☒ Agricultural ☐ Commercial		☐ Industrial ☐ Residential Other:	
Indicate the dominant type:	☐ Trees ☐ Shrubs		☒ Grasses ☒ Herbaceous	
Canopy Cover:	N/A			
Floodplain Width:	Moderate (15-30 ft)	Wetland Present:	☐ Yes but fails soil test ☒ No	Wetland ID:

AQUATIC VEGETATION			
Indicate the dominant type and record the dominant species present:			
☐ Rooted emergent	☐ Rooted submergent	☐ Rooted floating	☐ Free floating
☐ Floating algae	☐ Attached algae	☒ None	

MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OBSERVATIONS AND NOTES

Channel was 70% vegetated in transmission line corridor.

GENERAL ID					
Stream ID BR-STR-2C	Stream Name: Unnamed				
Lat: 46.676904	Long: -102.65004	Date: 11/19/2015			
Project Name: Brady Wind I		Client: Nextera			
Investigators: J. Rodriguez, C. Sandow					
Flow Regime: Intermittent	Water Type:	Photo ID:			

CHANNEL FEATURES			
Estimate Measurements		**Stream Erosion**	
Top of Bank Width (feet):	10	Stream Erosion:	None
Top of bank Height (feet):		Artificial, Modified, or Channelized:	No
LB (feet):	1.5	Dam Present:	No
RB (feet):	1.5	Sinuosity:	Low
Water Depth (in.):	N/A	Gradient:	Flat (0.5-100ft)
Water Width (feet):	N/A		
High Water Mark (feet):	30		

FLOW CHARACTERISTICS				
Water Present:	Standing water	Proportion of Reach Represented by Stream Morphology Types:		
Velocity:	N/A	Riffle (%): 0	Pool (%): 0	Run (%): 0
Turbidity:	N/A			
	Other:			

SUBSTRATE COMPONENTS

Inorganic Substrate Components—Should add to 100%)			Organic Substrate Components—Does not necessarily add to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Reach
Bedrock			Detritus	Sticks, wood, coarse plant materials (CPOM)	20
Boulder	> 256mm (10”)		Muck–Mud	Black, very fine grain organic	
Cobble	64–256mm (2.5”–10”		Marl	Grey, shell fragments	
Gravel	2–64mm (0.1”–2.5”)				
Sand	0.06–2mm (gritty)				
Silt	0.004–0.06mm	50			
Clay	< 0.004mm (slick)	50			

WATERSHED FEATURES				
Predominant Surrounding Land Use:	☐ Forest ☐ Field/Pasture ☒ Agricultural ☐ Commercial	☐ Industrial ☐ Residential Other:		
Indicate the dominant type:	☐ Trees ☐ Shrubs	☒ Grasses ☐ Herbaceous		
Canopy Cover:	N/A			
Floodplain Width:	Moderate (15-30 ft)	Wetland Present:	☐ Yes but fails soil test ☐ No	Wetland ID: BR-WT-3C

AQUATIC VEGETATION			
Indicate the dominant type and record the dominant species present:			
☒ Rooted emergent	☐ Rooted submergent	☐ Rooted floating	☐ Free floating
☐ Floating algae	☐ Attached algae	☐ None	

MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OBSERVATIONS AND NOTES

GENERAL ID			
Stream ID BR-STR-2D	Stream Name: Unnamed		
Lat: 46.6494258	Long: -102.65004	Date: 11/19/2015	
Project Name: Brady Wind I		Client: Nextera	
Investigators: S. Ryan, C. Carver			
Flow Regime: Ephemeral	Water Type:	Photo ID:	

CHANNEL FEATURES			
Estimate Measurements		**Stream Erosion**	
Top of Bank Width (feet):	25	Stream Erosion:	None
Top of bank Height (feet):		Artificial, Modified, or Channelized:	Yes
LB (feet):	6	Dam Present:	Yes
RB (feet):	1.5	Sinuosity:	High
Water Depth (in.):	N/A	Gradient:	Flat (0.5-100ft)
Water Width (feet):	N/A		
High Water Mark (feet):	30		

FLOW CHARACTERISTICS				
Water Present:	No water present, stream bed dry	Proportion of Reach Represented by Stream Morphology Types:		
Velocity:	N/A	Riffle (%): 0	Pool (%): 0	Run (%): 0
Turbidity:	N/A			
	Other:			

SUBSTRATE COMPONENTS

Inorganic Substrate Components—Should add to 100%)			Organic Substrate Components—Does not necessarily add to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Reach
Bedrock			Detritus	Sticks, wood, coarse plant materials (CPOM)	
Boulder	> 256mm (10”)		Muck–Mud	Black, very fine grain organic	
Cobble	64–256mm (2.5”–10”		Marl	Grey, shell fragments	
Gravel	2–64mm (0.1”–2.5”)				
Sand	0.06–2mm (gritty)	100			
Silt	0.004–0.06mm				
Clay	< 0.004mm (slick)				

WATERSHED FEATURES				
Predominant Surrounding Land Use:	☐ Forest ☐ Field/Pasture ☒ Agricultural ☐ Commercial		☐ Industrial ☐ Residential Other:	
Indicate the dominant type:	☐ Trees ☐ Shrubs		☒ Grasses ☐ Herbaceous	
Canopy Cover:	N/A			
Floodplain Width:	Wide (over 30 ft)	Wetland Present:	☐ Yes but fails soil test ☒ No	Wetland ID:

AQUATIC VEGETATION			
Indicate the dominant type and record the dominant species present:			
☐ Rooted emergent	☐ Rooted submergent	☐ Rooted floating	☐ Free floating
☐ Floating algae	☐ Attached algae	☒ None	

MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OBSERVATIONS AND NOTES

Meandering stream that enters collection line in 3 locations from the west. Stream bed is vegetated in many areas. Banks are wide and gently sloping to a max depth of ~8 feet. Two earthen dams modify stream flow. Both dams contain 24" culverts. Dams most likely act as a form of flood control. Possibly historical ditched or modified.

GENERAL ID			
Stream ID BR-STR-3D	Stream Name: Unnamed		
Lat: 46.6377121	Long: -102.6827472	Date: 11/20/2015	
Project Name: Brady Wind I		Client: Nextera	
Investigators: S. Ryan, C. Carver			
Flow Regime: Ephemeral	Water Type: NRPW	Photo ID:	

CHANNEL FEATURES			
Estimate Measurements		**Stream Erosion**	
Top of Bank Width (feet):	20	Stream Erosion:	None
Top of bank Height (feet):		Artificial, Modified, or Channelized:	No
LB (feet):	0.5	Dam Present:	No
RB (feet):	0.5	Sinuosity:	Low
Water Depth (in.):	N/A	Gradient:	Flat (0.5-100ft)
Water Width (feet):	N/A		
High Water Mark (feet):			

FLOW CHARACTERISTICS				
Water Present:	No water present, stream bed dry	Proportion of Reach Represented by Stream Morphology Types:		
Velocity:	N/A	Riffle (%): 0	Pool (%): 0	Run (%): 0
Turbidity:	N/A			
	Other:			

SUBSTRATE COMPONENTS

Inorganic Substrate Components—Should add to 100%)			Organic Substrate Components—Does not necessarily add to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Reach
Bedrock			Detritus	Sticks, wood, coarse plant materials (CPOM)	
Boulder	> 256mm (10”)		Muck–Mud	Black, very fine grain organic	
Cobble	64–256mm (2.5”–10”		Marl	Grey, shell fragments	
Gravel	2–64mm (0.1”–2.5”)				
Sand	0.06–2mm (gritty)				
Silt	0.004–0.06mm	100			
Clay	< 0.004mm (slick)				

WATERSHED FEATURES		
Predominant Surrounding Land Use:	☐ Forest ☐ Field/Pasture ☒ Agricultural ☐ Commercial	☐ Industrial ☐ Residential Other:
Indicate the dominant type:	☐ Trees ☐ Shrubs	☒ Grasses ☐ Herbaceous
Canopy Cover:	N/A	

Floodplain Width:	Wide (over 30 ft)	Wetland Present:	☐ Yes but fails soil test ☒ No	Wetland ID:

AQUATIC VEGETATION			
Indicate the dominant type and record the dominant species present:			
☐ Rooted emergent	☐ Rooted submergent	☐ Rooted floating	☐ Free floating
☐ Floating algae	☐ Attached algae	☒ None	

MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OBSERVATIONS AND NOTES

Stream crosses two interconnect routes. NHD-mapped. Planted corn above both banks. Stream continues (open) in both directions.

GENERAL ID			
Stream ID BR-STR-4D	Stream Name: Unnamed		
Lat: 46.6742969	Long: -102.6805641	Date: 11/20/2015	
Project Name: Brady Wind I		Client: Nextera	
Investigators: S. Ryan, C. Carver			
Flow Regime: Ephemeral	Water Type: NRPW	Photo ID:	

CHANNEL FEATURES			
Estimate Measurements		**Stream Erosion**	
Top of Bank Width (feet):	5	Stream Erosion:	Moderate
Top of bank Height (feet):		Artificial, Modified, or Channelized:	No
LB (feet):	0.5	Dam Present:	No
RB (feet):	0.5	Sinuosity:	Medium
Water Depth (in.):	N/A	Gradient:	Flat (0.5-100ft)
Water Width (feet):	N/A		
High Water Mark (feet):			

FLOW CHARACTERISTICS				
Water Present:	No water present, stream bed dry	Proportion of Reach Represented by Stream Morphology Types:		
Velocity:	N/A	Riffle (%): 0	Pool (%): 0	Run (%): 0
Turbidity:	N/A			
	Other:			

SUBSTRATE COMPONENTS					
Inorganic Substrate Components—Should add to 100%)			**Organic Substrate Components—Does not necessarily add to 100%)**		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Reach
Bedrock			Detritus	Sticks, wood, coarse plant materials (CPOM)	
Boulder	> 256mm (10”)		Muck–Mud	Black, very fine grain organic	
Cobble	64–256mm (2.5”–10”		Marl	Grey, shell fragments	
Gravel	2–64mm (0.1”–2.5”)				
Sand	0.06–2mm (gritty)				
Silt	0.004–0.06mm	100			
Clay	< 0.004mm (slick)				

WATERSHED FEATURES		
Predominant Surrounding Land Use:	☐ Forest ☒ Field/Pasture ☐ Agricultural ☐ Commercial	☐ Industrial ☐ Residential Other:
Indicate the dominant type:	☐ Trees ☐ Shrubs	☐ Grasses ☒ Herbaceous
Canopy Cover:	N/A	

Floodplain Width:	Wide (over 30 ft)	Wetland Present:	☐ Yes but fails soil test ☒ No	Wetland ID:

AQUATIC VEGETATION			
Indicate the dominant type and record the dominant species present:			
☐ Rooted emergent	☐ Rooted submergent	☐ Rooted floating	☐ Free floating
☐ Floating algae	☐ Attached algae	☒ None	

MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OBSERVATIONS AND NOTES

Flows northwest toward impounded pond.

Appendix 4:
Representative Photos

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Photo 1: View to the typical swale. This feature has no defined bed or banks and no scoured channel, and is therefore not a wetland.

Photo 2: View to the southwest of typical upland. An NHD flowline was mapped in this location, but this feature has no channel that exhibits wetland or other WoUS traits.

Photo 3: View to the south of Pond 2A. This feature likely collects several inches of water after seasonal precipitation events and should not be used for construction.

Photo 4: View to the northeast of Wetland 2A. This feature exhibited several patches of prairie cord grass and was saturated on aerial imagery. The wetland extends to the north and south of the survey area; however it is contained to the linear depressional area that runs north to south.

Photo 5: View to the northwest of Wetland 3A. This wetland is a small toe slope wetland located in an agricultural field. The wetland was observed to have problematic vegetation because the plant community had been altered. The wetland sample plot does meet the Hydric soil and wetland hydrology tests, and was therefore formally delineated and should be avoided for construction.

Photo 6: View to the northwest of Wetland 4A. This wetland is partially located in a soybean field and therefore exhibits problematic vegetation. The entire wetland is enclosed in a depression in an area that has been disturbed by agricultural practices.

Photo 7: View to the northeast of Wetland 5A. Approximately 20 percent of the wetland had open water at the time of sampling. This entire area mapped as wetland likely collects substantial amounts of water during the rainy season, and should not be used for construction.

Photo 8: View facing northwest of Wetland 6A. This wetland is located in the topographical low point of a swale that runs through a plowed canola field.

Photo 9: View facing North of Wetland 7A. The wetland was dominated by barnyard grass and was located in a linear depression. Wetland sampling determined that the area to the south of wetland was upland, and that the wetland was isolated to the north side of the transmission line survey corridor.

Photo 10: View to the northeast of Wetland 1B. This wetland is located in a roadside ditch. And continues outside the survey area on the other side of the road.

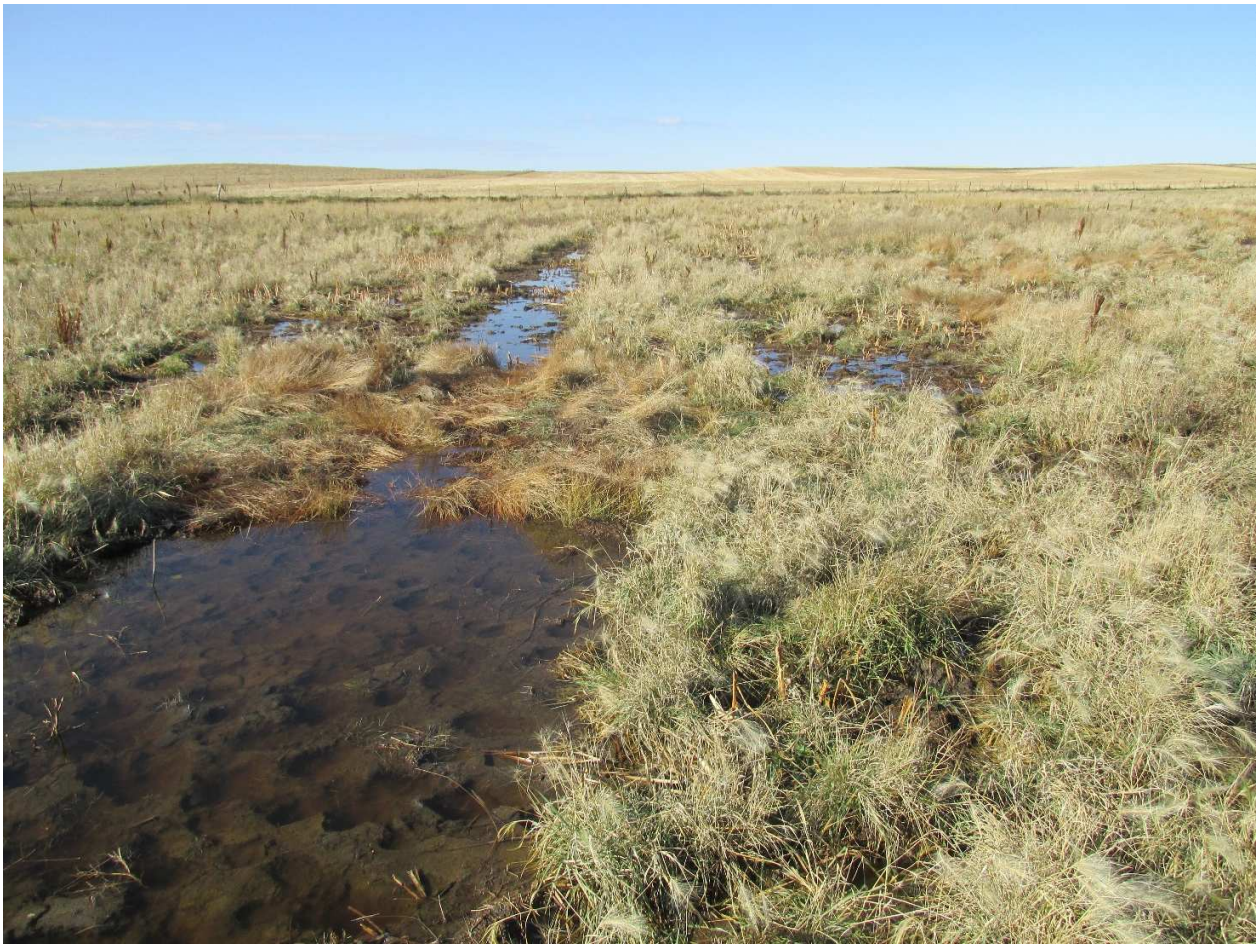

Photo 12: View to the southwest of Wetland 3B, with several inches of water in the center of the mapped wetland area.

Photo 13: View to the north of Wetland 5B. This wetland was dominated by reed canary grass, a FACW plant.

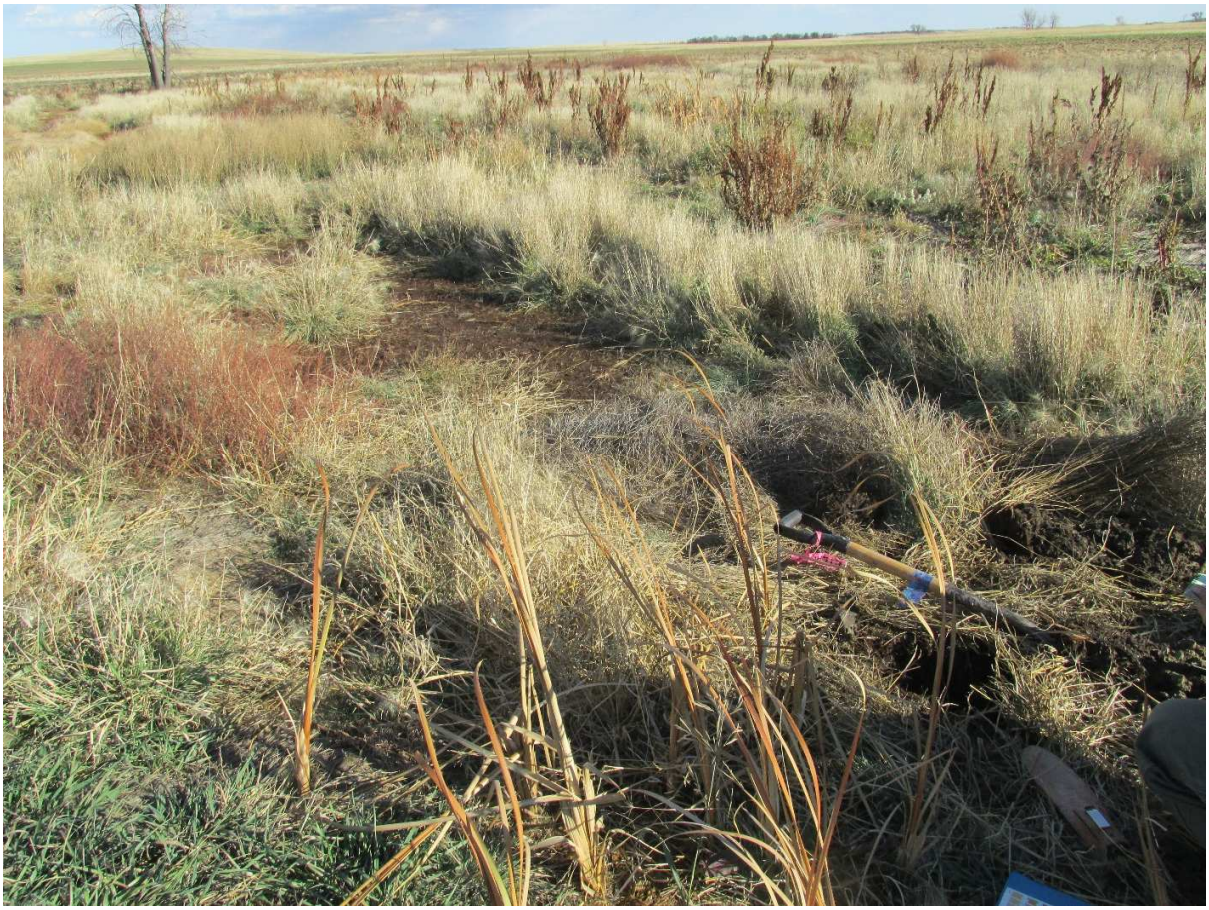

Photo 14: Wetland 6B. A slightly depressional wetland with a mix of native and non-native wetland plants.

Photo 15: Wetland 1C. A depressional wetland in a recently plowed field.

Photo 16: Wetland 3C. A depressional wetland in a recently plowed field. Cattails in the center-right of photo are obligate wetland plants.

Photo 17: Wetland 5C. A wetland adjacent to Pond 1C.

Photo 18: Wetland 7C. A depressional wetland in a recently plowed field. A distinct salt crust has formed on the surface of the soil which is a hydrology indicator.

Photo 19: Wetland 1C. A depressional wetland in a recently plowed field.

Photo 20: Stream 1C. A typical narrow ephemeral stream feature in an agricultural field. There is a distinct vegetation change from the fields and the channel.

Photo 21: Stream 2D. A typical narrow ephemeral stream feature in a grassland. The stream channel is overgrown with the surrounding vegetation.

Photo 23: Pond 1D. A typical pond likely used for agricultural purposes.

Appendix 5:
USACE Nationwide Permits General and Regional Conditions

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Nationwide Permit General Conditions

Note:

To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

1. *Navigation.* (a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. *Aquatic Life Movements.* No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species.

3. *Spawning Areas.* Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. *Migratory Bird Breeding Areas.* Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. *Shellfish Beds.* No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. *Suitable Material.* No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).

7. *Water Supply Intakes.* No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. *Adverse Effects From Impoundments.* If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. *Management of Water Flows.* To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. *Fills Within 100-Year Floodplains.* The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. *Equipment.* Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. *Soil Erosion and Sediment Controls.* Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.

13. *Removal of Temporary Fills.* Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. *Proper Maintenance.* Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. *Single and Complete Project.* The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. *Wild and Scenic Rivers.* No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).

17. *Tribal Rights.* No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

18. *Endangered Species.* (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed.

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address ESA compliance for the NWP activity, or whether additional ESA consultation is necessary.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that might be affected by the proposed work or that utilize the designated critical habitat that might be affected by the proposed work. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or

critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification the proposed activities will have "no effect" on listed species or critical habitat, or until Section 7 consultation has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific regional endangered species conditions to the NWPs.

(e) Authorization of an activity by a NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the U.S. FWS or the NMFS, The Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the U.S. FWS and NMFS or their world wide web pages at *http://www.fws.gov/* or *http://www.fws.gov/ipac* and *http://www.noaa.gov/fisheries.html* respectively.

19. *Migratory Birds and Bald and Golden Eagles.* The permittee is responsible for obtaining any "take" permits required under the U.S. Fish and Wildlife Service's regulations governing compliance with the Migratory Bird Treaty Act or the Bald and Golden Eagle Protection Act. The permittee should contact the appropriate local office of the U.S. Fish and Wildlife Service to determine if such "take" permits are required for a particular activity.

20. *Historic Properties.* (a) In cases where the district engineer determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address section 106 compliance for the NWP activity, or whether additional section 106 consultation is necessary.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the authorized activity may have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register

of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of or potential for the presence of historic resources can be sought from the State Historic Preservation Officer or Tribal Historic Preservation Officer, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of Section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted and these efforts, the district engineer shall determine whether the proposed activity has the potential to cause an effect on the historic properties. Where the non-Federal applicant has identified historic properties on which the activity may have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.

(d) The district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA Section 106 consultation is required. Section 106 consultation is not required when the Corps determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). If NHPA section 106 consultation is required and will occur, the district engineer will notify the non-Federal applicant that he or she cannot begin work until Section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. *Discovery of Previously Unknown Remains and Artifacts.* If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect

the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. *Designated Critical Resource Waters.* Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, and 52 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38, notification is required in accordance with general condition 31, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

23. *Mitigation.* The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that adverse effects on the aquatic environment are minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse effects of the proposed activity are minimal, and provides a project-specific waiver of this requirement. For wetland losses of1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the aquatic environment. Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in minimal adverse effects on the aquatic environment.

(2) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, wetland restoration should be the first compensatory mitigation option considered.

(3) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2)-(14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)).

(4) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan only needs to address the baseline conditions at the impact site and the number of credits to be provided.

(5) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan.

(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation, such as stream rehabilitation, enhancement, or preservation, to ensure that the activity results in minimal adverse effects on the aquatic environment.

(e) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of1/2-acre, it cannot be used to authorize any project resulting in the loss of greater than1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that a project already meeting the established acreage limits also satisfies the minimal impact requirement associated with the NWPs.

(f) Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the restoration or establishment, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, riparian areas may be the only compensatory mitigation required. Riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to establish a riparian area

on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or establishing a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(g) Permittees may propose the use of mitigation banks, in-lieu fee programs, or separate permittee-responsible mitigation. For activities resulting in the loss of marine or estuarine resources, permittee-responsible compensatory mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(h) Where certain functions and services of waters of the United States are permanently adversely affected, such as the conversion of a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse effects of the project to the minimal level.

24. *Safety of Impoundment Structures.* To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. *Water Quality.* Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA Section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

26. *Coastal Zone Management.* In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The district engineer or a State may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

27. *Regional and Case-By-Case Conditions.* The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its

section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. *Use of Multiple Nationwide Permits.* The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed1/3-acre.

29. *Transfer of Nationwide Permit Verifications.* If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

"When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

(Transferee)

(Date)

30. *Compliance Certification.* Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

(a) A statement that the authorized work was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;

(b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and

(c) The signature of the permittee certifying the completion of the work and mitigation.

31. *Pre-Construction Notification*—(a) *Timing.* Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction

notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or in the vicinity of the project, or to notify the Corps pursuant to general condition 20 that the activity may have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is “no effect” on listed species or “no potential to cause effects” on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or Section 106 of the National Historic Preservation (see 33 CFR 330.4(g)) has been completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) *Contents of Pre-Construction Notification:* The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed project;

(3) A description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause, including the anticipated amount of loss of water of the United States expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. The description should be sufficiently detailed to allow the district engineer to determine that the adverse effects of the project will be minimal and to determine the need for

compensatory mitigation. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the project and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

(4) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many waters of the United States. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

(5) If the proposed activity will result in the loss of greater than1/10-acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse effects are minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(6) If any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, for non-Federal applicants the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work. Federal applicants must provide documentation demonstrating compliance with the Endangered Species Act; and

(7) For an activity that may affect a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, for non-Federal applicants the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property. Federal applicants must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

(c) *Form of Pre-Construction Notification:* The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is a PCN and must include all of the information required in paragraphs (b)(1) through (7) of this general condition. A letter containing the required information may also be used.

(d) *Agency Coordination:* (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the project's adverse environmental effects to a minimal level.

(2) For all NWP activities that require pre-construction notification and result in the loss of greater than1/2-acre of waters of the United States, for NWP 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52 activities that require pre-construction notification and will result in the loss of greater than 300 linear feet of intermittent and ephemeral stream bed, and for all NWP 48 activities that require pre-construction notification, the district engineer will immediately provide (e.g., via email, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (U.S. FWS, state natural resource or water quality agency, EPA, State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Office (THPO), and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to telephone or fax the district engineer notice that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure the net adverse environmental effects to the aquatic environment of the proposed activity are minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(3) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(4) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

2012 Nationwide Permits
Regional Conditions
Omaha District
State of North Dakota

The following Nationwide Permit regional conditions will be used in the State of North Dakota. Regional conditions are placed on Nationwide Permits to ensure projects result in less than minimal adverse impacts to the aquatic environment and to address local resources concerns.

Wetlands Classified as Peatlands – Revoked for Use

All Nationwide Permits, with the exception of 3, 5, 20, 32, 38 and 45, are revoked for use in peatlands in North Dakota.

Peatlands are saturated and inundated wetlands where conditions inhibit organic matter decomposition and allow for the accumulation of peat. Under cool, anaerobic, and acidic conditions, the rate of organic matter accumulation exceeds organic decay. Peatlands can be primarily classified into ombrotrophic bogs and minerotrophic fens; the latter subdivided into poor, moderate-rich, and extreme-rich fens, each with distinctive indicator species, community physiognomy, acidity, alkalinity, and base cation content.

Wetlands Classified as Peatlands – Pre-construction Notification Requirement

For Nationwide Permits 3, 5, 20, 32, 38, and 45 permittees must notify the Corps in accordance with General Condition 31 (Notification) prior to initiating any regulated activity impacting peatlands in North Dakota.

Waters Adjacent to Natural Springs – Pre-construction Notification Requirement

For all Nationwide Permits permittees must notify the Corps in accordance with General Condition No. 31 (Notification) for regulated activities located within 100 feet of the water source in natural spring areas in North Dakota. For purposes of this condition, a spring source is defined as any location where there is artesian flow emanating from a distinct point at any time during the growing season. Springs do not include seeps and other groundwater discharge areas where there is no distinct point source.

Missouri River, including Lake Sakakawea and Lake Oahe within the State of North Dakota – Pre-construction Notification Requirement

For all Nationwide Permits permittees must notify the Corps in accordance with General Condition No. 31 (Notification) prior to initiating any regulated activity in the Missouri River, including Lake Sakakawea and Lake Oahe, within the State of North Dakota.

Borrow Site Identification – All Nationwide Permits

The permittee is responsible for ensuring that the Corps is notified of the location of any borrow site that will be used in conjunction with the construction of the authorized activity so that the Corps may evaluate the site for potential impacts to aquatic resources, historic properties, and endangered species. For projects where there is another lead Federal agency, the permittee shall provide the Corps documentation indicating that the lead Federal agency has complied with the National Historic Preservation Act and Endangered Species Act for the borrow site. The permittee shall not initiate work at the borrow site in conjunction with the authorized activity until approval is received from the Corps.

Counter-sinking Culverts and Associated Riprap – All Nationwide Permits

That culverts and riprap proposed to be installed within waters of the United States listed as Class III or higher on the 1978 Stream Evaluation Map for the State of North Dakota shall be installed one foot below the natural streambed. The 1978 Stream Evaluation Map for the State of North Dakota can be accessed on the North Dakota Regulatory Office's website at: http://www.nwo.usace.army.mil/Portals/23/docs/regulatory/ND/gen/nd_streams_readable.pdf

REGIONAL CONDITIONS APPLICABLE TO SPECIFIC NATIONWIDE PERMITS

Nationwide Permit 7 – Outfall Structures and Associated Intake Structures and Nationwide Permit 12 – Utility Line Activities

Intake Structures - Intake screens with a maximum mesh opening of 1/4-inch must be provided, inspected annually, and maintained. Wire, Johnson-like, screens must have a maximum distance between wires of 1/8-inch. Water velocity at the intake screen shall not exceed ½-foot per second.

Pumping plant sound levels will not exceed 75 dB at 50 feet.

Intakes located in Lake Sakakawea, above river mile 1519, are subject to the following conditions:

- The intakes shall be floating.
- At the beginning of the pumping season, the intake shall be placed over water with a minimum depth of 20 feet.
- If the 20-foot depth is not attainable, then the intake shall be located over the deepest water available.
- If the water depth falls below six feet, the intake shall be moved to deeper water or the maximum intake velocity shall be limited to ¼ foot per second.

Intakes located in Lake Sakakawea, below river mile 1519, and in the Missouri River below Garrison Dam are subject to the following conditions:

- The intakes shall be submerged.
- At the beginning of the pumping season, the intake will be placed at least 20 vertical feet below the existing water level.
- The intake shall be elevated 2 to 4 feet off the bottom of the river or reservoir bed.
- If the 20-foot depth is not attainable, then the intake velocity shall be limited to ¼-foot per second with the intake placed at the maximum practicable attainable depth.

Nationwide Permit 11 – Temporary Recreational Structures - Boat Docks

a. If future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

b. No boat dock shall be located on a sandbar or barren sand feature located in or along the banks of the Missouri River.

c. The farthest point riverward on the dock located on the Missouri River proper shall not exceed a total length of 30 feet from the ordinary high water line found along the high bank out into the River. Information Note: Issuance of this permit does not supersede authorization required by the North Dakota State Engineer's Office.

d. Any boat dock located on the Missouri River shall be anchored to the top of the high bank.

e. Any boat dock located within an excavated bay or marina off the main river channel may be anchored to the bay or marina bottom with spuds.

Nationwide Permit 13 - Bank Stabilization

Permittees must notify the Corps in accordance with General Condition No. 31 (Notification) prior to initiating any regulated activity within the State of North Dakota.

Nationwide Permit 23 - Approved Categorical Exclusions

Permittees must notify the Corps in accordance with General Condition No. 31 (Notification) prior to initiating any regulated activity within the State of North Dakota. In addition to information required by General Condition 31, permittees must identify the approved categorical exclusion that applies and provide documentation that the project fits the categorical exclusion.

Nationwide Permit 27 - Aquatic Habitat Restoration, Establishment and Enhancement Activities

Permittees must notify the Corps in accordance with General Condition No. 31 (Notification) prior to initiating any regulated activity within the State of North Dakota.

GENERAL CONDITIONS (REGIONAL ADDITIONS)

General Condition 3- Spawning Areas

No regulated activity within waters of the United States listed as Class III or higher on the 1978 Stream Evaluation Map for the State of North Dakota or on the North Dakota Game and Fish Department's website as a North Dakota Public Fishing Water shall occur between 15 April and 1 June. No regulated activity within the Red River of the North shall occur between 15 April and 1 July. North Dakota Public Fishing Waters can be accessed at: http://gf.nd.gov/fishing/where-to-fish. The 1978 Stream Evaluation Map for the State of North Dakota can be accessed on the North Dakota Regulatory Office's website at: http://www.nwo.usace.army.mil/Portals/23/docs/regulatory/ND/gen/nd_streams_readable.pdf.

General Condition 6 – Suitable Material

Permittees are reminded that General Condition No. 6 prohibits the use of unsuitable material. In addition, organic debris, some building waste, and materials excessive in fines are not suitable material. Specific verbiage on prohibited materials can be accessed on the North Dakota Regulatory Office's website at: http://www.nwo.usace.army.mil/Portals/23/docs/regulatory/ND/gen/prohibitionpnJuly2011.pdf.

General Condition 9 - Management of Water Flows

Permittees are reminded that water flow management addressed in General Condition 9 is applicable to all aspects of a permitted project, including temporary features.

General Condition 31 – Pre-construction Notification

Prospective permittees should be aware that a **field delineation** may be required for applications where notification is required in accordance with General Condition 31 and/or mitigation may be required. The Corps 1987 Wetland Delineation Manual and applicable Regional Supplements to the Manual can be accessed on the North Dakota Regulatory Office's website at: http://www.nwo.usace.army.mil/Missions/RegulatoryProgram/NorthDakota.aspx .

Appendix 6:
Best Management Practices

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Best Management Practices – Brady Wind Energy Center

Reference Number	Measure
BMP-1	Minimize clearing vegetation within the ROW, consistent with applicable federal, state, and local regulations.
BMP-2	Vegetation removed during clearing should be disposed of according to federal, state, and local regulations.
BMP-3	Any herbicides used during construction and operations and maintenance should be applied according to label instructions and any federal, state, and local regulations.
BMP-4	Restrict vehicular travel to the ROW and other established areas within the construction, access, or maintenance easement(s).
BMP-5	Roads not otherwise needed for maintenance and operations should be restored to preconstruction conditions. Restoration practices may include decompacting, recontouring, and re-seeding. Roads needed for maintenance and operations should be retained.
BMP-6	Avoid and/or minimize damage to drainage features and other improvements such as ditches, culverts, levees, tiles, and terraces; however, if these features or improvements are inadvertently damaged, they should be repaired and or restored.
BMP-7	Emergency and spill response equipment should be kept on hand during construction.
BMP-8	Restrict the refueling and maintenance of vehicles and the storage of fuels and hazardous chemicals within at least 100 feet from wetlands, surface waterbodies, and groundwater wells, or as otherwise required by federal, state, or local regulations.
BMP-9	Minimize compaction of soils and rutting through appropriate use of construction equipment (e.g., low ground pressure equipment and temporary equipment mats).
BMP-10	Provide sanitary toilets convenient to construction; these should be located greater than 100 feet from any stream or tributary or to any wetland. These facilities should be regularly serviced and maintained; waste disposal should be properly manifested. Employees should be notified of sanitation regulations and should be required to use sanitary facilities.
BMP-11	Identify environmentally sensitive vegetation (e.g., wetlands, protected plant species, riparian areas, and large contiguous tracts of native prairie) and avoid and/or minimize impacts to these areas.

BMP-12	Identify and implement measures to control and minimize the spread of non-native invasive species and noxious weeds.
BMP-13	Identify, avoid, and/or minimize adverse effects to wetlands and waterbodies. Do not place structure foundations within the Ordinary High Water Mark (OHWM) of Waters of the United States (wetlands or streams).
BMP-14	Establish streamside management zones within 50 feet of both sides of intermittent and perennial streams and along margins of bodies of open water where removal of low-lying vegetation is minimized.
BMP-15	Selectively apply herbicides within streamside management zones.
BMP-16	Construct access roads to minimize disruption of natural drainage patterns including perennial, intermittent, and ephemeral streams.
BMP-17	Locate spoil piles from foundation excavations and electrical collection line trenches outside of streamside management zones.
BMP-18	Dewatering should be conducted in a manner designed to prevent soil erosion (e.g., through discharge of water to vegetated areas and/or the use of flow control devices).
BMP-19	Design infrastructure to avoid adverse changes to the base flood elevation within the 100-year floodplain.
BMP-20	Minimize fill for access roads and structure foundations within 100-year floodplains to avoid adverse changes to the base flood elevation.
BMP-21	Excavated trenches that are to be backfilled should separate the upper 12 inches of topsoil from the rest of the excavated material. The topsoil should be used as the final backfill.
BMP-22	All permanent and temporary crossings of waterbodies should be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of aquatic species. The crossings would also be constructed to withstand expected high flows. The crossings would not restrict or impede the passage of normal or high flows. Permanent structure placement within a Water of the United States will require permitting from the US Army Corps of Engineers.
BMP-23	Where tree removal is necessary in the ROW, this removal should be accomplished at ground level leaving root wads in place to aid in the stabilization of soils.

BMP-24	Appropriate sediment and erosion controls should be used to prevent erosion and to minimize the release of sediment from the project area to Waters of the U.S. These sediment and erosion controls should be installed prior to any land disturbance associated with construction and should be regularly inspected and maintained in effective operating condition for the duration of the construction phase. Additional erosion and sediment control measures should be further addressed in a Stormwater Management Plan.
BMP-25	To the extent practicable, work within Waters of the U.S. should occur during periods of low or no flow.
BMP-26	The movement of crews and equipment should be limited to the project area or construction easement, including access routes.
BMP-27	Construction staging and laydown areas should be located and arranged in a manner to avoid trees and vegetation and to minimize visual impacts to the extent practicable.