

Fredrikson

& BYRON, P.A.

September 22, 2010

HAND-DELIVERED

Mr. Darrell Nitschke
Executive Secretary
North Dakota Public Service Commission
600 E. Boulevard, Dept. 408
Bismarck, ND 58505-0480

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SEP 22 2010

PUBLIC SERVICE COMMISSION

**RE: CPV Ashley Renewable Energy
Company, LLC
Case No. PU-09-370**

Dear Mr. Nitschke:

Please find enclosed herewith for filing an original and ten copies of the following documents in connection with the above-referenced matter:

1. Late Filed Exhibit 11 – Wetlands Delineation Report;
2. Late Filed Exhibit 12 – Class III Archeological Survey Report;
3. Late Filed Exhibit 13 – Class II Architectural Reconnaissance Survey Report;
and
4. Proposed Findings of Fact, Conclusions of Law and Order issuing Certificate of Site Compatibility.

Also enclosed herewith are disks containing the same in PDF format. Should you have any questions, please advise.

Sincerely,



MOLLIE M. SMITH

MS/mms
Enclosures

cc: Mr. John Hafner – (w/enc.) *Via Email*
Mr. Gener Gotiangco – (w/enc.) *Via Email*
Mr. Robert Burke – (w/enc.) *Via Email*
Mr. Sean J. Finnerty – (w/enc.) *Via Email*
Ms. Erika Roberts – (w/enc.) *Via Email*

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Late filed exhibit 11 - Wetlands Delineation Report

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**DELINEATION OF WETLANDS AND WATERS OF THE
UNITED STATES**

**ASHLEY WIND ENERGY PROJECT
MCINTOSH COUNTY, NORTH DAKOTA**

Prepared For:



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September 2010

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ACRONYMS AND ABBREVIATIONS

BGEPA	Bald and Golden Eagle Protection Act
CFR	Code of Federal Regulations
CPV	CPV Ashley Renewable Energy Company, LLC
CWA	Clean Water Act
DWQ	North Dakota Division of Water Quality
EO	Executive Order
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
FAC	facultative
FACU	facultative upland
FACW	facultative wetland
GIS	geographic information system
GPS	global positioning system
kV	kilovolt
met tower	meteorological tower
MBTA	Migratory Bird Treaty Act
MDU	Montana-Dakota Utilities Co.
MISO	Midwest Independent Transmission System Operator
MW	megawatt
NDAC	North Dakota Administrative Code
NHD	National Hydrography Dataset
NI	no indicator
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
NWP	nationwide permit
NDDOH	North Dakota Department of Health
NDGFD	North Dakota Game and Fish Department
OBL	obligate wetland
O&M	operations and maintenance
OHWM	ordinary high water mark
PEM	palustrine emergent
PFO	palustrine forested
Project	Ashley Wind Energy Project
PSS	palustrine scrub-shrub
RPW	relatively permanent waters
TVA	Tennessee Valley Authority
Tetra Tech	Tetra Tech EC, Inc.

TNW	traditional navigable waters
UPL	obligate upland
U.S.	United States
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WPA	Waterfowl Production Areas

1.0 INTRODUCTION

CPV Ashley Renewable Energy Company, LLC (CPV) is developing plans to build the Ashley Wind Energy Project (Project) approximately 6 miles north of the City of Ashley in McIntosh County, North Dakota (Figure 1).

Tetra Tech EC, Inc. (Tetra Tech) was contracted by CPV to conduct a preliminary desktop analysis for the Project, followed by a field verification and delineation. The purpose of the desktop analysis was to map and evaluate existing datasets for the presence of wetlands and water resources within the Project Area and to use that information to aid in Project design. Following the desktop analysis, Tetra Tech wetland ecologists performed field verification and delineation of wetlands and other “waters of the United States [U.S.]” within the Project footprint and adjacent study area buffer (defined as the Project study corridor). Field work was performed from June 21 through July 1, 2010 and July 8-11, 2010. Through this identification of wetlands and water resources, CPV’s engineers were able to avoid or minimize impacts on these resources through micrositing of the Project layout. This report documents the results of the field work.

1.1 Project Description

The proposed Project will consist of up to approximately 200.1 megawatts (MW) of renewable wind energy capacity. The Project Area is defined as approximately 17,400 acres of private land under easement agreement with CPV for the construction and operation of the Project (Figure 2). Of the 17,400 acres, only 0.4 percent is expected to be permanently affected by the Project footprint. Project facilities will likely include:

- up to 87 wind turbines;
- new gravel access roads and improvements to existing county roads;
- underground electrical collection lines;
- an operation and maintenance (O&M) building;
- interconnection substation facility;
- up to four permanent meteorological towers (met towers); and
- a temporary batch plant area and staging/laydown area for the construction phase of the Project.

The Project will interconnect to the Midwest Independent Transmission System Operator (MISO) electric grid via a 230-kilovolt (kV) Montana-Dakota Utilities Co. (MDU) transmission line that passes through the Project Area. The proposed Project and supporting facilities will be sited, constructed, and operated entirely within the 17,400-acre Project Area.

1.2 Purpose and Regulatory Framework

The purpose of this report is to document formally the wetlands and other waters present in the Project study corridor and provide a characterization of these resources. This assessment was conducted for use in designing development plans that comply with federal regulations concerning water quality as set forth under the Clean Water Act (CWA) of 1972. The United States Army Corps of Engineers (USACE) enforces Section 10 and Section 404 of the CWA, which regulates the discharge of dredged or fill material into all “waters of the U.S.” including wetlands. Such waters are known as jurisdictional “waters of the U.S.” and include not only obvious water bodies such as rivers, lakes, harbors, and bays, but also less obvious bodies of water such as intermittent streams and wetlands. If impacts on wetlands are

expected to exceed the nationwide permit 12 threshold of 0.5 acre, CPV will submit the results of the wetlands delineation survey to the USACE for its review and concurrence with the findings prior to Project construction.

Pursuant to Section 404 of the CWA, USACE defines wetlands in 33 Code of Federal Regulations (CFR) 328.3b in general terms as those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and which under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. The 1987 USACE Wetland Delineation Manual (USACE 1987) defines technical criteria to establish whether or not a wetland meets the definition presented in 33 CFR 328.3b. Three essential characteristics form the technical criteria: (1) prevalence of hydrophytic vegetation; (2) hydric soils; and (3) wetland hydrology. For an area to be classified as a jurisdictional wetland under the federal guidelines, all of the above criteria must be met and the wetland must have a significant nexus with a water of the U.S.

“Waters of the U.S.” are defined in 40 CFR 230.3(s) 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 purposes by industries in interstate commerce;
4. All impoundments of waters otherwise defined as waters of the United States under this definition;
5. Tributaries of waters identified in paragraphs (s)(1) through (4) of this section;
6. The territorial sea;
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (s)(1) through (6) of this section; waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 423.11(m) which also meet the criteria of this definition) are not waters of the United States.

“Waters of the U.S.” 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 CWA, the final authority regarding CWA jurisdiction remains with the United States Environmental Protection Agency (EPA).

1.2.1 Federal Jurisdiction

1.2.1.1 Clean Water Act

Under Section 404 of the CWA, the USACE and the EPA regulate the discharge of dredge and fill material into “waters of the U.S.” The jurisdictional status of wetlands and other waters is generally based on the USACE Jurisdictional Determination Form Instructional Guidebook (USACE 2007b) and USACE guidance resulting from Clean Water Act Jurisdiction Following the U.S. Supreme Court’s Decision in *Rapanos v. United States & Carabell v. United States* (USACE 2008a). In order for an aquatic feature to be considered a “water of the U.S.,” it must be at least one of the following:

- A traditional navigable water (TNW)
- A wetland adjacent to a TNW
- A relatively permanent water (RPW), including tributaries that typically flow year-round or have a continuous flow at least seasonally (typically three consecutive months depending on the region)
- A wetland that directly abuts a RPW
- A wetland adjacent (proximal but not abutting) to a RPW, but only if it can be shown that the feature has a “significant nexus” with a TNW
- A non-RPW or wetland adjacent to a non-RPW if the feature has a “significant nexus” with a TNW (USACE 2007b)

Adjacent is defined as “bordering, contiguous, or neighboring.” Wetlands separated from other waters of the U.S. by barriers such as natural river berms, man-made dikes, and beach dunes may be considered adjacent wetlands. The 2008 ruling also requires that the agencies not generally assert jurisdiction over the following features:

- Swales or erosional features (e.g., gullies or small washes characterized by low volume, infrequent, or short duration flow); and
- Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water.

Recent agency guidance states that the agencies will apply the significant nexus standard as follows (USACE 2007a):

- A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters; and
- Significant nexus includes consideration of hydrologic and ecologic factors.

In the absence of adjacent wetlands, lateral jurisdiction over nontidal waters extends to the ordinary high water mark (OHWM). The definition of the OHWM is “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” (65 Federal Register 12823, 2000).

1.2.1.2 Executive Order 11990 Protection of Wetlands

The purpose of Executive Order (EO) 11990, Protection of Wetlands, is to "minimize the destruction, loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands." To meet these objectives, the EO requires federal agencies, in planning their actions, to consider alternatives to wetland sites and limit potential damage if an activity affecting a wetland cannot be avoided. Tennessee Valley Authority (TVA), a federal agency, is buying up to 200 MW of power from the Project. This federal action requires TVA to comply with EO 11990. In compliance with EO 11990 and to support TVA's role as lead federal agency, all wetlands present in the Project study corridor were delineated in the field to determine the types and extent of wetlands present, followed by micro-siting to avoid impacts to wetlands when possible.

1.2.2 State Jurisdiction

State-regulated wetlands in North Dakota are primarily regulated through Section 401 of the CWA water quality certification program. The North Dakota Department of Health's (NDDOH) Division of Water Quality (DWQ) is the primary permitting agency for wetlands in North Dakota under Section 401. The North Dakota Game and Fish Department (NDGFD) acts as a commenting agency on wetland permitting through the Section 404 process when protected species are potentially involved.

Wetlands in North Dakota are defined according to North Dakota Administrative Code (NDAC) 33-16-02.1-09 as "water bodies, including isolated ponds, sloughs, and marshes, [that] are to be considered waters of the state and will be protected under [general water quality standards]." "Waters of the state" are defined according to NDAC Section 61-28-02(11) as:

all waters within the jurisdiction of [the] state including all streams, lakes, ponds, impounding reservoirs, marshes, watercourses, waterways, and all other bodies or accumulation of water on or under the surface of the earth, natural or artificial, public or private, situated wholly or partly within or bordering upon the state, except those private waters that do not combine or effect a junction with natural surface or underground water just defined.

The North Dakota State Engineer's Office oversees the consultation process for impacts to "waters of the state," however permits are issued through various state offices depending on the type of impact. Pursuant to North Dakota Century Code 61-32-03, a Drain Permit is required from the State Engineer's Office before draining (or filling) "a pond, slough, lake, or sheetwater, or any series thereof, which has a watershed area comprising 80 acres or more."

2.0 SITE DESCRIPTION AND LOCATION

The proposed Project is located in McIntosh County in southeastern North Dakota in the Central Dark Brown Glaciated Plains (Major Land Resource Area 53B). The entirety of McIntosh County lies within the Northern Great Plains Spring Wheat Region (USDA-SCS 1981) and Central Lowland and Great Plains Physiographic Regions (Bluemle 1991). The regional topography is defined by rolling hills with many shallow isolated lakes and prairie potholes ranging in elevation from about 1,900 to 2,250 feet; the Project Area elevation is consistent with that of the region, ranging between 2,000 and 2,200 feet above sea level. The Project Area spans 34 separate sections of land, as summarized in Table 1.

Table 1. Townships, Ranges, and Sections within the Project Area

Township	Range	Sections
131N	69W	5, 6, 7, 8, 9, 10, 11, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 26, 27, 28, 29, 30
131N	70W	1, 2, 11, 12, 13, 14, 23, 24
132N	69W	31, 32
132N	70W	35, 36

Of the various soil types occurring in the Project study corridor, the majority are variations of loams, silty loams, clay loams, and silty clay loams. The underlying soil parent material is mostly of glacial origin with deposits of glaciolacustrine, till, and glaciofluvial deposits. No major streams are present in the immediate vicinity of the Project Area. The South Branch of Beaver Creek is approximately 12 miles to the west of the Project and Spring Creek is approximately 18 miles to the south in South Dakota.

Land use in the Project Area is characterized by farming and ranching. The Project Area is rural with a low population density and scattered residential areas. A few existing vertical structures are present, including the 230-kV transmission line owned by MDU, the 345-kV transmission line owned by Basin Electric, overhead distribution lines, and five temporary met towers associated with this Project.

2.1 Project Area Climate

Precipitation data from the National Weather Service (NWS 2010) Center for Bismarck, North Dakota (the closest center with archived data, located about 80 miles northwest of the Project) was examined. These data characterize the climate-sourced hydrology for the water resources examined during the survey period. The Water Year in North Dakota is the period measured from January 1 to December 31. Recent climate information is contrasted with normal, or average, climate information, based on records from the years 1971 to 2000. Recent climate data available on-line for Bismarck are summarized as follows:

- Normal Water-Year-to-Date: 9.06 inches
- Observed Water-Year-to-Date as of July 11, 2010: 11.15 inches
- Water-Year-to-Date departure from normal: 2.09 inches above normal(or 23 percent above normal)
- Normal monthly precipitation for June: 2.59 inches
- Monthly rainfall for June 2010: 2.48 inches
- Departure from normal June precipitation: 0.11 inches below normal
- Normal average monthly temperature for June: 64.6

- Observed average monthly temperature for June: 65.2
- Departure from normal average monthly temperature for June: 0.6 (or about 1 percent above normal)

Wetland hydrology observed in the Project Area during the survey period (June and a portion of July) was typical for the region. Daily temperature and precipitation amounts for the field investigation period are provided in Table 2. Average monthly precipitation and average monthly temperatures for McIntosh County, as listed by the NRCS (2010a), are presented in Table 3. While daily temperature and precipitation amounts deviated slightly from normal during the investigation period, precipitation year-to-date was 23 percent above normal. Most of the contributing precipitation occurred in April and May, during which 1.62 inches (111 percent) and 0.83 inches (37 percent) of rainfall above monthly normal occurred, respectively (NWS 2010).

Table 2. Daily Precipitation Summary for the Project Area¹

Date	Temperature (°F)				Precipitation (in)
	Maximum	Minimum	Average	Departure from Normal Average	
Jun-1	65	45	55	-6	0.00
Jun-2	71	39	55	-6	0.00
Jun-3	73	54	64	2	0.10
Jun-4	79	50	65	3	0.00
Jun-5	80	53	67	5	0.02
Jun-6	77	52	65	3	0.00
Jun-7	77	45	61	-2	0.16
Jun-8	79	58	69	6	Trace
Jun-9	72	55	64	1	0.00
Jun-10	67	57	62	-1	Trace
Jun-11	66	56	61	-3	0.01
Jun-12	65	54	60	-4	Trace
Jun-13	71	49	60	-4	0.00
Jun-14	71	39	55	-9	0.00
Jun-15	78	42	60	-5	0.00
Jun-16	83	45	64	-1	Trace
Jun-17	81	58	70	5	0.53
Jun-18	70	52	61	-4	Trace
Jun-19	75	51	63	-3	0.01
Jun-20	82	53	68	2	0.00
Jun-21	81	60	71	5	0.00
Jun-22	82	58	70	4	0.79
Jun-23	80	59	70	3	0.00
Jun-24	86	56	71	4	0.00
Jun-25	86	63	75	8	0.39
Jun-26	85	63	74	7	0.47
Jun-27	79	56	68	1	0.00
Jun-28	77	57	67	-1	0.00
Jun-29	82	54	68	0	0.00
Jun-30	97	65	81	13	0.00
Jul-1	95	66	81	13	0.00
Jul-2	94	70	82	13	0.00

Table 2. Daily Precipitation Summary for the Project Area¹

Date	Temperature (°F)			Departure from Normal Average	Precipitation (in)
	Maximum	Minimum	Average		
Jul-3	83	65	74	5	0.00
Jul-4	81	59	70	1	0.00
Jul-5	78	53	66	-3	0.00
Jul-6	73	49	61	-8	0.02
Jul-7	80	52	66	-3	Trace
Jul-8	84	51	68	-2	0.00
Jul-9	88	52	70	0	0.00
Jul-10	95	54	75	5	0.13
Jul-11	74	56	65	-5	Trace

Source: <http://www.weather.gov/climate/index.php?wfo=bis>

¹ Bolded text indicates dates in which wetlands were delineated in the Ashley Wind Project.

Table 3. Average Precipitation and Temperature for the Project Area

Month	Average Precipitation (Inches)	Average Monthly Temperatures
January	0.41	9°F
February	0.39	17°F
March	0.92	28°F
April	1.49	42°F
May	2.73	56°F
June	3.53	65°F
July	2.55	70°F
August	2.30	69°F
September	1.59	58°F
October	1.59	45°F
November	0.61	28°F
December	0.28	15°F

Source: <http://www.wcc.nrcs.usda.gov/ftpref/support/climate/wetlands/nd/38051.txt>

2.2 Regional Wetland Ecosystems

The North American Prairie Pothole Region extends from the Canadian provinces of Alberta, Saskatchewan and Manitoba, down into the United States within the states of Montana, North Dakota, Minnesota, South Dakota, and Iowa. The prairie pothole region covers a large portion of northern, central and eastern North Dakota. McIntosh County, North Dakota is situated within the prairie pothole region.

Prairie potholes are depressional wetlands formed as a result of the Wisconsin glaciation during the Pleistocene Epoch ending approximately 10,000 years ago. In addition to prairie potholes, kettle lakes also formed in this region when partially buried glacial ice blocks melted, leaving behind water-filled depressions. In current times, these depressional wetlands fill with water in the spring following snowmelt and spring rains. Depths of surface water varies dependent upon current climatic trends.

Stewart and Kantrud (1972) describe nine classes or types of prairie pothole vegetation in North Dakota. These systems include wetland low prairies, wet meadows, shallow-marsh emergent, deep-marsh emergent, fen emergent, submerged and floating aquatic, natural drawdown vegetation, cropland drawdown vegetation, and cropland tillage vegetation. These prairie pothole vegetation types will be discussed in more detail in the results section of this document as they pertain to plant communities documented by the field assessment.

3.0 METHODS

3.1 Information Review

Prior to conducting on-site field surveys, desktop analysis for the Project study corridor was conducted using data sets such as 2009 aerial imagery (NAIP 2009), National Wetlands Inventory (NWI) maps (USFWS 2009a), the National Hydrography Dataset (NHD) (USGS 2010), and the Natural Resources Conservation Service (NRCS) soil survey (SSURGO 2009). Immediately prior to field work, aerial photography for the Project Area was studied and a conservative estimate was made of those wetlands and water resources that should be delineated. This estimate was based on either the clear placement of a buffered Project feature within a likely wetland or water of the U.S., or the siting of a buffered Project feature in close proximity to wetlands or other waters of the U.S.

3.2 Field Analysis

The Project study corridor was surveyed for the location and extent of wetlands. The Project study corridor was defined as the Project footprint plus an adjacent study area buffer as follows: 250-foot radius study area around turbines; 75-foot study corridor across crane paths and new access roads; 50-foot wide study corridor across existing county roads to be improved; 60-foot-wide study corridor across new spur roads to the permanent meteorological towers; and 30-foot-wide study corridor across buried electrical collection line locations. Additional Project facilities covered in the field analysis included the O&M building and equipment staging area (7.5 acres); four proposed permanent meteorological towers (1 acre each); the interconnection substation facility (9 acres); and the temporary batch plant (2.5 acres).

Wetlands numbered 1-25 were delineated according to the routine methodology set forth in the USACE *Wetland Delineation Manual* (USACE 1987) and the *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region* (USACE 2010a). Wetlands numbered 26-100 were assessed for the presence of dominant hydrophytic vegetation and characteristic wetland hydrology per these standards, but no soil pits were dug. This methodology for assessing Wetlands 26-100 was chosen because it was determined after the first 25 wetlands were delineated that these wetlands were of very similar type and function in the landscape. These characteristics are described in more detail later in this document.

Vegetation analysis involved evaluation of each vegetation stratum (herbaceous, shrub, tree, and vine). The percent cover by species was determined using a 5-foot radius for the herbaceous layer, a 15-foot radius for the shrub layer, and 30-foot radii for tree and vine strata. The wetland indicator status was determined for each dominant plant species based on the *Region 4: North Plains* addendum to Reed's *1988 National List of Plant Species that Occur in Wetlands* (USACE 2010b). Hydrophytic vegetation, or plants that are indicators of wetlands, include those 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 no indicator (NI) status.

Pairs of soil pits were dug at each of the first 25 sample plots to a maximum depth of 20 inches. One soil pit was placed in areas of readily discernable wetland plant communities, and a companion soil pit was placed nearby in upland sites. This allowed for the establishment of a conservative polygon to be mapped between wet and dry areas of any given site under evaluation. Soils were inspected for the presence of hydric soil indicators as described in the new Great Plains Regional Supplement. The soil hue, value, and chroma were examined and defined using the *Munsell Soil Color Charts* (Macbeth 1994).

Hydrology was analyzed for primary and secondary wetland indicators at each wetland. Primary wetland indicators include visible inundation, soil saturation, water marks, drift lines, sediment deposits, and drainage patterns in wetlands. Secondary wetland indicators of hydrology include oxidized root channels associated with living roots, water-stained leaves, and local soil survey data. The soil pits were left open a sufficient amount of time to allow for the stabilization of the apparent high water table, if present. All data were recorded on the Wetland Determination Data Forms (Appendix A). Sample plots that exhibited qualifying characteristics of hydrophytic vegetation, hydric soils, and wetland hydrology were identified as wetlands.

The Cowardin classification system categorizes wetlands by vegetative community and hydrologic regime (Cowardin et al. 1979). The Cowardin classification of the wetlands within the Project study corridor are palustrine (i.e., freshwater) emergent (non-woody plants rooted in soils that are saturated at least part of the time with most of the plant emerged above the surface) (PEM), palustrine scrub-shrub (PSS), and palustrine forested (PFO) types. The vast majority of wetlands in the Project Area were documented as PEM wetlands.

The field investigation also included an examination of NWI- and United States Geological Survey (USGS)-mapped streams (“blue lines”), as well as other drainages that were not mapped by the NWI or USGS. The USACE regulates streams that have a surface water connection with navigable waters.

Tetra Tech evaluated wetlands and surface waters in the Project following guidance provided in the USACE Jurisdictional Determination Form Instruction Guidebook and joint EPA and USACE guidance regarding CWA jurisdiction after Rapanos (EPA/USACE 2007b, 2008).

3.3 Mapping

The boundaries of wetlands within the Project study corridor as well as some of these features that were visible just outside of the Project study corridor but within the Project Area were recorded using a Geo@XH™ Global Positioning System (GPS) in the field. The Geo@XH™ unit provides an estimated 3-foot (1 meter) survey accuracy (post-processing) for open areas with little or no canopy cover, such as the open areas characterizing most of the Project Area. The field-collected data were plotted as a map layer using geographic information system (GIS) software and are displayed in Figure 2 (Sheets 1-13). Some wetlands extended well beyond the Project study corridor and were therefore not mapped in the field in their entirety. However, where these wetland boundaries were clearly visible on current aerial photography, these boundaries were digitized from that source using ArcInfo.

Supporting information for the delineation—wetland forms and site photographs—are presented in Appendices A and B, respectively.

4.0 RESULTS AND DISCUSSION

4.1 Vegetation

4.1.1 Regional

The majority of land in the region is used for crop cultivation (spring wheat, barley, oats, sunflower, and hay) or ranching, with patches of native grassland. This region of North Dakota is mixed grass prairie. The commonly observed native grassland species include western wheatgrass (*Agropyron smithii*), needleandthread (*Stipa comata*), green needlegrass (*Stipa viridula*), Kentucky bluegrass (*Poa pratensis*), Sandberg's bluegrass (*Poa secunda*), and blue grama (*Bouteloua gracilis*). Introduced grasses include smooth brome (*Bromus inermis*) and crested wheatgrass (*Agropyron cristatum*) (NRCS 2006). A wide variety of forbs are also present in the region, including common sunflower (*Helianthus annuus*), prairie coneflower (*Ratibida columnifera*), purple coneflower (*Echinacea angustifolia*), western wallflower (*Erysimum asperum*), silverleaf scurf pea (*Psoralea argophylla*), and yarrow (*Achillea millefolium*), among many others.

4.1.2 Project Area

The regional plants listed in the previous section are all dominants on the Project Area. Table 4 provides a more complete listing of wetland plant species observed.

Table 4. Common Dominant and Subdominant Wetland Plant Species Observed within the Project Study Corridor

Scientific Name	Common Name (USDA, NRCS 2010)	Indicator Status*
<i>Agrostis gigantea</i>	Redtop	NI
<i>Agrostis stolonifera</i>	Creeping bentgrass	FAC+
<i>Alisma plantago-aquatica</i>	Water plantain	OBL
<i>Alopecurus aequalis</i>	Short-awned foxtail	OBL
<i>Anenome canadensis</i>	Meadow anemone	FACW
<i>Apocynum sibiricum</i>	Claspingleaf dogbane	FAC
<i>Beckmannia syzigachne</i>	American slough grass	OBL
<i>Bidens cernua</i>	Beggarticks	OBL
<i>Calamagrostis inexpansa</i>	Northern reedgrass	FACW
<i>Carex atherodes</i>	Slough sedge	OBL
<i>Carex lanuginosa</i>	Woolly sedge	OBL
<i>Carex oligosperma</i>	Bog sedge	NI
<i>Carex sartwellii</i>	Sartwell's sedge	FACW
<i>Carex vulpinoidea</i>	Fox sedge	OBL
<i>Distichlis stricta</i>	Saltgrass	NI
<i>Eleocharis acicularis</i>	Needle spikerush	OBL
<i>Eleocharis palustris</i>	Creeping spikerush	OBL
<i>Equisetum arvense</i>	Common horsetail	FAC
<i>Glyceria grandis</i>	Giant mannagrass	NI
<i>Glyceria striata</i>	Fowl mannagrass	OBL
<i>Hierochloa odorata</i>	Sweetgrass	FACW
<i>Hordeum jubatum</i>	Foxtail barley	FACW
<i>Juncus balticus</i>	Baltic rush	OBL
<i>Juncus canadensis</i>	Canada rush	NI

Table 4. Common Dominant and Subdominant Wetland Plant Species Observed within the Project Study Corridor

Scientific Name	Common Name (USDA, NRCS 2010)	Indicator Status*
<i>Juncus dudleyi</i>	Dudley's rush	NI
<i>Lemna minor</i>	Lesser duckweed	OBL
<i>Mentha arvensis</i>	Wild mint	FACW
<i>Montia howellii</i>	Howell's montia	NI
<i>Panicum capillare</i>	Witchgrass	FAC
<i>Panicum virgatum</i>	Switchgrass	FAC
<i>Phalaris arundinacea</i>	Reed canary grass	FACW+
<i>Phragmites australis</i>	Giant reed grass	FACW
<i>Poa palustris</i>	Fowl bluegrass	FACW
<i>Polygonum amphibium</i>	Water smartweed	OBL
<i>Potamogeton pectinatus</i>	Sago pondweed	OBL
<i>Ranunculus aquatilis</i>	Water crowfoot	OBL
<i>Rumex crispus</i>	Curly dock	FACW
<i>Rumex mexicanus</i>	Willow dock	FACW
<i>Sagittaria latifolia</i>	Broadleaf arrowhead	OBL
<i>Salix amygdaloides</i>	Peach-leaved willow	FACW
<i>Salix exigua</i>	Coyote willow	FACW+
<i>Scirpus acutus</i>	Hardstem bulrush	OBL
<i>Scirpus americanus</i>	Three-square bulrush	OBL
<i>Scirpus atrovirens</i>	Green bulrush	OBL
<i>Scirpus fluviatilis</i>	River bulrush	OBL
<i>Scirpus validus</i>	Softstem bulrush	OBL
<i>Scolochloa festucacea</i>	Whitetop	OBL
<i>Scutellaria galericulata</i>	Marsh skullcap	OBL
<i>Sparganium eurycarpum</i>	Giant bur-reed	OBL
<i>Spartina pectinata</i>	Prairie cordgrass	FACW
<i>Teucrium occidentale</i>	American germander	FACW
<i>Typha angustifolia</i>	Narrow-leaved cattail	OBL
<i>Typha latifolia</i>	Broad-leaved cattail	OBL
<i>Utricularia macrorhiza</i>	Bladderwort	OBL

USDA = United States Department of Agriculture

* Indicator Status is defined as follows (USACE 2010b):

<u>Code</u>	<u>Indicator Status</u>	<u>Occurrence</u>
OBL	Obligate Wetland	Occurs almost always (estimated probability 99%) under natural conditions in wetlands.
FACW	Facultative Wetland	Usually occurs in wetlands (estimated probability 67%-99%), but occasionally found in non-wetlands.
FAC	Facultative	Equally likely to occur in wetlands or non-wetlands (estimated probability 34%-66%).
FACU	Facultative Upland	Usually occurs in non-wetlands (estimated probability 67%-99%), but occasionally found on wetlands (estimated probability 1%-33%).
UPL	Obligate Upland	May occur in wetlands in another region, but occurs almost always (estimated probability 99%) under natural conditions in non-wetlands in the regions specified.
NI	No indicator	Insufficient information available to determine an indicator status.

An indicator status code may be further qualified with a plus (+) or (-) sign. The plus (+) sign indicates a frequency of occurrence towards the wetter end of the category and the negative (-) sign indicates a frequency towards the drier end of the category.

Table 5 provides a listing of the upland plants commonly observed in the Project study corridor.

Table 5. Common Dominant and Subdominant Upland Plant Species Observed within the Project Study Corridor

Scientific Name	Common Name (USDA, NRCS 2010)	Indicator Status*
<i>Achillea millefolium</i>	Common yarrow	FACU
<i>Agoseris sp. (glauca?)</i>	--- (Pale false-dandelion)	--- (FAC)
<i>Agropyron cristatum</i>	Crested wheatgrass	NI
<i>Agropyron smithii</i>	Western wheatgrass	FACU
<i>Alyssum sp.</i>	Alyssum	NI
<i>Ambrosia psilostachya</i>	Perennial ragweed	FAC
<i>Amorpha canescens</i>	Leadplant	NI
<i>Antennaria sp.</i>	Pussytoes	NI
<i>Artemisia absinthium</i>	Absinth wormwood	NI
<i>Artemisia frigida</i>	Fringed sagewort	NI
<i>Artemisia ludoviciana</i>	White sage	FACU
<i>Asclepias pumila</i>	Plains milkweed	NI
<i>Asclepias speciosa</i>	Showy milkweed	FAC
<i>Asclepias viridiflora</i>	Green milkweed	NI
<i>Astragalus crassicaarpus</i>	Groundplum milkvetch	NI
<i>Bouteloua gracilis</i>	Blue grama	NI
<i>Bromus inermis</i>	Smooth brome	NI
<i>Calylophus serrulatus</i>	Yellow evening primrose	NI
<i>Carex brevior</i>	Fescue sedge	FACU
<i>Carex praegracilis</i>	Clustered field sedge	FACW
<i>Chenopodium sp.</i>	Lambsquarters	---
<i>Cirsium arvensis</i>	Canada thistle	FACU
<i>Cirsium flodmanii</i>	Flodman's thistle	NI
<i>Cirsium vulgare</i>	Bull thistle	UPL
<i>Convolvulus arvensis</i>	Field bindweed	NI
<i>Dactylis glomerata</i>	Orchard grass	FACU
<i>Dalea purpurea</i>	Purple prairie clover	NI
<i>Echinacea angustifolia</i>	Purple coneflower	NI
<i>Elymus canadensis</i>	Canada wildrye	FACU
<i>Erigeron strigosus</i>	Daisy fleabane	FACU
<i>Erysimum asperum</i>	Western wallflower	NI
<i>Euphorbia esula</i>	Leafy spurge	NI
<i>Frasera speciosa</i>	Green gentian	NI
<i>Gaillardia aristata</i>	Blanket flower	NI
<i>Galium boreale</i>	Northern bedstraw	FACU
<i>Gaura coccinea</i>	Scarlet gaura	NI
<i>Geum triflorum</i>	Prairie smoke	FACU

Table 5. Common Dominant and Subdominant Upland Plant Species Observed within the Project Study Corridor

Scientific Name	Common Name (USDA, NRCS 2010)	Indicator Status*
<i>Glycyrrhiza lepidota</i>	American licorice	FACU
<i>Gutierrezia sarothrae</i>	Broom snakeweed	NI
<i>Koeleria macrantha</i>	Prairie junegrass	NI
<i>Lactuca serriola</i>	Prickly lettuce	FACU
<i>Lotus purshianus</i>	American deervetch	NI
<i>Medicago falcata</i>	Yellow-flowered alfalfa	NI
<i>Medicago lupulina</i>	Black medic	FACU
<i>Medicago sativa</i>	Alfalfa	NI
<i>Melilotus alba</i>	White sweetclover	FACU-
<i>Melilotus officinalis</i>	Yellow sweetclover	FACU-
<i>Nasturtium officinale</i>	Watercress	OBL
<i>Onosmodium molle</i>	False gromwell	NI
<i>Oxytropis lambertii</i>	Lambert crazyweed	UPL
<i>Penstemon angustifolius</i>	Narrowleaf beardtongue	NI
<i>Petasites sp.</i>	Coltsfoot	---
<i>Poa compressa</i>	Canada bluegrass	FACU
<i>Poa pratensis</i>	Kentucky bluegrass	FACU
<i>Poa secunda</i>	Sandberg's bluegrass	NI
<i>Polygala alba</i>	White milkwort	NI
<i>Populus deltoides</i>	Plains cottonwood	FAC
<i>Potentilla sp.</i>	Potentilla	---
<i>Prunus americana</i>	Wild plum	UPL
<i>Prunus virginiana</i>	Chokecherry	FACU-
<i>Psoralea argophylla</i>	Silverleaf scurfpea	NI
<i>Psoralea esculenta</i>	Breadfruit scurfpea	NI
<i>Ranunculus sp.</i>	Buttercup	---
<i>Ratibida columnifera</i>	Prairie coneflower	NI
<i>Rosa arkansana</i>	Prairie rose	NI
<i>Sisyrinchia montanum</i>	Mountain blue-eyed grass	FAC
<i>Solidago canadensis</i>	Canada goldenrod	FACU
<i>Solidago mollis</i>	Soft goldenrod	NI
<i>Solidago rigida</i>	Stiff goldenrod	FACU-
<i>Sonchus arvensis</i>	Perennial sow thistle	FAC
<i>Stipa comata</i>	Needleandthread	NI
<i>Stipa viridula</i>	Green needlegrass	NI
<i>Symphoricarpos occidentalis</i>	Western snowberry	NI
<i>Thlaspi arvense</i>	Field pennycress	NI
<i>Tradescantia occidentalis</i>	Prairie spiderwort	UPL
<i>Tragopogon dubius</i>	Goatsbeard	NI

Table 5. Common Dominant and Subdominant Upland Plant Species Observed within the Project Study Corridor

Scientific Name	Common Name (USDA, NRCS 2010)	Indicator Status*
<i>Triticum aestivum</i>	Wheat	NI
<i>Ulmus pumila</i>	Chinese elm	NI
<i>Urtica dioica</i>	Stinging nettle	FACW
<i>Vernonia fasciculata</i>	Ironweed	FACW
<i>Xanthium strumarium</i>	Cocklebur	FAC
<i>Zea mays</i>	Corn	NI
<i>Zigadenus elegans</i>	Showy deathcamas	FACU

* Indicator Status is defined as follows (USACE 2010):

Code	Indicator Status	Occurrence
OBL	Obligate Wetland	Occurs almost always (estimated probability 99%) under natural conditions in wetlands.
FACW	Facultative Wetland	Usually occurs in wetlands (estimated probability 67%-99%), but occasionally found in non-wetlands.
FAC	Facultative	Equally likely to occur in wetlands or non-wetlands (estimated probability 34%-66%).
FACU	Facultative Upland	Usually occurs in non-wetlands (estimated probability 67%-99%), but occasionally found on wetlands (estimated probability 1%-33%).
UPL	Obligate Upland	May occur in wetlands in another region, but occurs almost always (estimated probability 99%) under natural conditions in non-wetlands in the regions specified.
NI	No indicator	Insufficient information available to determine an indicator status.

An indicator status code may be further qualified with a plus (+) or (-) sign. The plus (+) sign indicates a frequency of occurrence towards the wetter end of the category and the negative (-) sign indicates a frequency towards the drier end of the category.

4.2 Soils

A total of 15 soil units mapped by the NRCS occur within the Project study corridor and are described in Table 6. Eight of these soil units are designated by the NRCS as hydric (NRCS 2010b). Hydric soils are defined as soils that are formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register 1994). The hydric criteria for soils in the Great Plains Region have been updated in the Great Plains Supplement (USACE 2010). Some soil characteristics previously defining upland soils are now considered by the USACE to be hydric soil characteristics. Although hydrophytic vegetation and wetland hydrology indicators must be confirmed before a wetland determination can be made, hydric soils information is useful in determining the potential presence of wetlands. In particular, if vegetation is removed by farming and wetlands are delineated in the drier seasons, soil characteristics become especially important indicators of the wetland-upland boundary. Detailed information from NRCS descriptions of each mapped soil unit within the Project study corridor is presented in Table 6.

Overall, the soils within the Project study corridor matched the loams, clay loams, silty clay loams, and loamy clay soils mapped by the NRCS for the area. The soils were generally dark brown to black (10YR 2/1) or very dark grayish brown (10YR 5/1). Soils across the Project are typically Mollisols, a productive agricultural soil common to grasslands and savannas characterized by a dark surface layer of mineral soil high in organic matter with a low chroma (1 or 2) matrix in both upland and wetland soils. Often, soils with low value and low chroma are considered hydric; nearly all the soils that supported

upland plants within the Project study corridor exhibited low value and low chroma. This soil type can have any moisture regime. Wetland soils frequently met the criteria for hydric soil indicator A11: Depleted Below Dark Surface or indicator A12: Thick Dark Surface. Its important to note that although hydric soils were prevalent throughout the Project study corridor, the presence of hydric soils alone is not enough to qualify an area as a wetland.

Table 6. NRCS Mapped Soil Units within the Project Study Corridor

NRCS Map Unit	NRCS Soil Series Description
2235 – Arnegard loam, 0 to 6 percent slopes	Well drained, very deep soils located, with moderate permeability on terraces and in swales on uplands. Parent material is alluvium. NRCS listed as hydric when in depressions and with a Parnell component. Major uses include cropland, pasture, and hayland. Listed as farmland of statewide importance.
873 – Hamerly-Parnell complex, 0 to 3 percent slopes	Somewhat poorly to very poorly drained soils on flats and depressions on till plains. NRCS listed as hydric when in depressions, flats, or drainageways with Marysland, Tonka, Vallery, or Parnell components. Major uses include cropland, pasture, and hayland.
2249 – Makoti silty clay loam, 0 to 3 percent slopes	Well drained soils on flats on lake plains. Not listed as hydric by NRCS. Major uses include cropland, pasture, and hayland. Listed as farmland of statewide importance.
2252 – Max-Zahl-Arnegard loams, 9 to 35 percent slopes, very stony	Well drained soils that occur on till plains and moraines. Max soils occur on knolls, ridges, backslopes, and summits. Zahl soils occur on shoulder slopes, knolls, and ridges. Arnegard soils occur on footslopes of knolls and ridges and in swales. Not listed as hydric by NRCS. Major uses include cropland, pasture, and hayland.
1372 – Noonan-Williams loams, 0 to 6 percent slopes	Moderately well drained to well drained soils that occur in swales and rises on till plains. NRCS listed as hydric when in depressions with Harriet or Tonka components. Major uses include cropland, pasture, and hayland.
1427 – Parnell silty clay loam	Very poorly drained soils with frequent ponding that occur on till plains. NRCS listed as hydric when in depressions, flats, or outwash plains with Marysland, Colvin, Parnell, Vallery, Tonka, or Southam components. Major uses include cropland, pasture, and hayland.
1710 – Southam silty clay loam	Very poorly drained soils with frequent ponding that occur on till plains. NRCS listed as hydric when in depressions, flats, beaches, or outwash plains with Marysland, Arveson, Vallery, Southam, Minnewaukan, or Lallie components. Major uses include cropland, pasture, and hayland.
2265 – Wabek-Appam sandy loams, 0 to 6 percent slopes	Excessively drained to somewhat excessively drained soils that occur on ridges and swales in outwash plains. Not listed as hydric by NRCS. Major uses include cropland, pasture, and hayland.
2266 – Wabek-Appam sandy loams, 6 to 25 percent slopes	Excessively drained to somewhat excessively drained soils that occur on ridges and swales in outwash plains. Not listed as hydric by NRCS. Major uses include cropland, pasture, and hayland.
2188 – Wabek-Lehr complex, 2 to 6 percent slopes	Excessively drained to somewhat excessively drained soils that occur on ridges and rises on outwash plains and collapsed outwash plains. Not listed as hydric by NRCS. Major uses include cropland, pasture, and hayland.

Table 6. NRCS Mapped Soil Units within the Project Study Corridor

NRCS Map Unit	NRCS Soil Series Description
2015 – Williams-Bowbells loams, 3 to 6 percent slopes	Well drained to moderately well drained soils that occur on rises and swales on till plains. Not listed as hydric by NRCS. Major uses include cropland, pasture, and hayland. Listed as farmland of statewide importance.
2031 – Williams-Zahl loams, 3 to 6 percent slopes	Well drained soils that occur on knolls, ridges, summits, backslopes, and shoulder slopes on till plains and moraines. NRCS listed as hydric when in depressions with Parnell components. Major uses include cropland, pasture, and hayland.
2073 – Zahl-Max loams, 15 to 60 percent slopes	Well drained soils that occur on knolls, ridges, shoulder slopes, and backslopes on till plains and moraines. Not listed as hydric by NRCS. Major uses include cropland, pasture, and hayland.
2175 – Zahl-Williams loams, 6 to 9 percent slopes	Well drained soils that occur on shoulder slopes and backslopes of knolls and ridges. NRCS listed as hydric when in depressions with Parnell components. Major uses include cropland, pasture, and hayland.
2081 – Zahl-Williams loams, 9 to 15 percent slopes	Well drained soils that occur on knolls, ridges, shoulder slopes, backslopes, and summits. NRCS listed as hydric when in depressions with Parnell or Tonka components. Major uses include cropland, pasture, and hayland.

4.3 Hydrology

Review of topographic maps, hydrography data, and the NRCS Soil Survey indicates that within the Project study corridor there are no linear water courses carrying surface water off the Project Area. The entirety of McIntosh County is located within the Missouri River drainage basin, most of the drainage is internal and does not flow out of the area (USDA-SCS 1981). The Project Area is located in the West Missouri Coteau Hydrologic Unit 10130106; this hydrologic unit drains to Lake Oahe River Basin in South Dakota (NRCS 2009). No defined streams occur within or immediately adjacent to the Project Area, but three large, named lakes occur just outside of the Project Area. Salt Lake is near the southeast boundary of the Project Area and both Green Lake and Pudwill Lake occur to the west. Overland surface flow from precipitation recharges the prairie pothole wetlands and lakes in the Project Area.

4.4 Wetlands

The Cowardin classification system categorizes wetlands by vegetative community and hydrologic regime (Cowardin et al. 1979). The Cowardin classification of the wetlands within the Project study corridor are predominantly palustrine (i.e., freshwater) emergent (non-woody plants rooted in soils that are saturated at least part of the time with most of the plant emerged above the surface) types (see Table 6). These palustrine emergent wetlands are all situated within prairie pothole or kettle lake. According to the Cowardin classification system, lakes with surface acreage of 8 hectares (20 acres) or more, and that lack trees, shrubs or persistent emergent vegetation are lacustrine (“lake”) systems. Furthermore, lakes that are less than 8 hectares in area, but that are more than 6.6 feet deep at low water, may be considered lacustrine systems. Tetra Tech evaluated all surface waters that would be crossed by the Project; however, due to the large number of lake systems that had to be evaluated, only the palustrine classification system was used to characterize those resources. Measurements of lake depth or surficial acreage were not conducted as part of the wetlands delineation.

As described in Section 2.2, the vegetation in the prairie pothole wetlands may also be classified in one of nine systems per Stewart and Kantrud (1972). These systems include wetland low prairies, wet meadows, shallow-marsh emergent, deep-marsh emergent, fen emergent, submerged and floating aquatic, natural drawdown vegetation, cropland drawdown vegetation, and cropland tillage vegetation. No fen emergent systems were observed onsite. All of the other eight classes were observed in the Project Area.

Table 7 lists the 100 wetlands identified in or proximate to the Project study corridor.

Table 7. Wetlands Identified within or Proximate to the Project Study Corridor

ID	Sheet-map No.	Cowardin Class	Size within Study Corridor (acre)	NRCS Mapped Soil Type (majority of polygon)	Hydric Soil Type Present
WET1	1	PEM	0.380	Parnell silty clay loam	Parnell silty clay loam
WET2	1	PEM	0.0	Zahl-Max loams, 15 to 60 percent slopes	
WET3	1, 2	PEM	0.124	Zahl-Max loams, 15 to 60 percent slopes	
WET4	1, 2	PEM	0.174	Parnell silty clay loam	Parnell silty clay loam
WET5	2	PEM	0.215	Zahl-Williams loams, 6 to 9 percent slopes	
WET6	2	PEM	0.0	Zahl-Williams loams, 6 to 9 percent slopes	
WET7	1, 2	PEM	0.285	Noonan-Williams loams, 0 to 6 percent slopes	
WET8	2	PEM	0.059	Williams-Zahl loams, 3 to 6 percent slopes	
WET9	2	PEM	0.862	Zahl-Williams loams, 6 to 9 percent slopes	
WET10	2	PEM	0.150	Zahl-Williams loams, 9 to 15 percent slopes	
WET11	4	PEM	0.052	Zahl-Williams loams, 6 to 9 percent slopes	
WET12	3	PEM	0.0	Zahl-Max loams, 15 to 60 percent slopes	
WET13	3	PEM	0.216	Zahl-Williams loams, 6 to 9 percent slopes	
WET14	3	PEM	0.009	Wabek-Appam sandy loams, 6 to 25 percent slopes	
WET15	4	PSS	0.220	Zahl-Max loams, 15 to 60 percent slopes	
WET16	8	PEM	0.024	Williams-Zahl loams, 3 to 6 percent slopes	
WET17	8	PEM	0.147	Zahl-Max loams, 15 to 60 percent slopes	
WET18	8	PEM	0.149	Zahl-Williams loams, 9 to 15 percent slopes	Parnell silty clay loam
WET19	8	PEM	0.347	Parnell silty clay loam	Parnell silty clay loam
WET20	4	PEM	0.392	Zahl-Williams loams, 9 to 15 percent slopes	
WET21	4	PEM	0.178	Zahl-Williams loams, 9 to 15 percent slopes	
WET22	4	PEM	0.574	Zahl-Williams loams, 9 to 15 percent slopes	
WET23	4	PEM	0.908	Zahl-Williams loams, 6 to 9 percent slopes	
WET24	4	PEM	0.058	Zahl-Williams loams, 6 to 9 percent slopes	
WET25	4, 5	PEM	0.0	Zahl-Williams loams, 6 to 9 percent slopes	
WET26	4, 5	PEM	0.0	Zahl-Williams loams, 6 to 9 percent slopes	
WET27	5	PEM	0.683	Zahl-Williams loams, 6 to 9 percent slopes	Southam silty clay loam
WET28	5	PEM	0.0	Zahl-Williams loams, 6 to 9 percent slopes	
WET29	5	PEM	0.388	Zahl-Williams loams, 9 to 15 percent slopes	
WET30	5, 9	PEM	0.225	Zahl-Williams loams, 9 to 15 percent slopes	
WET31	9	PEM	0.047	Zahl-Williams loams, 6 to 9 percent slopes	
WET32	9	PEM	0.052	Zahl-Williams loams, 6 to 9 percent slopes	
WET33	9	PEM	0.147	Zahl-Max loams, 15 to 60 percent slopes	
WET34	9	PEM	0.0	Zahl-Max loams, 15 to 60 percent slopes	

Table 7. Wetlands Identified within or Proximate to the Project Study Corridor

ID	Sheet- map No.	Cowardin Class	Size within Study Corridor (acre)	NRCS Mapped Soil Type (majority of polygon)	Hydric Soil Type Present
WET35	8, 9	PEM	0.104	Zahl-Max loams, 15 to 60 percent slopes	
WET36	8, 9	PEM	0.347	Zahl-Williams loams, 9 to 15 percent slopes	Southam silty clay loam
WET37	8	PEM	0.103	Zahl-Williams loams, 9 to 15 percent slopes	
WET38	6	PEM	1.964	Southam silty clay loam	Southam silty clay loam
WET39	6	PEM	0.114	Zahl-Williams loams, 6 to 9 percent slopes	
WET40	6	PEM	0.450	Zahl-Williams loams, 6 to 9 percent slopes	
WET41	6	PEM	0.245	Zahl-Williams loams, 6 to 9 percent slopes	
WET42	6	PEM	0.564	Southam silty clay loam	Southam silty clay loam / Parnell silty clay loam
WET43	6	PEM	0.213	Zahl-Williams loams, 6 to 9 percent slopes	
WET44	6	PEM	0.015	Williams-Zahl loams, 3 to 6 percent slopes	
WET45	6	PEM	0.905	Zahl-Williams loams, 9 to 15 percent slopes	
WET46	6	PEM	0.066	Max-Zahl-Arnegard loams, 9 to 35 percent slopes, very stony	
WET47	10	PEM	0.087	Max-Zahl-Arnegard loams, 9 to 35 percent slopes, very stony	
WET48	9, 10	PEM	0.082	Zahl-Williams loams, 9 to 15 percent slopes	
WET49	9, 10	PEM	0.927	Zahl-Williams loams, 6 to 9 percent slopes	
WET50	9	PEM	0.157	Williams-Zahl loams, 3 to 6 percent slopes	
WET51	9, 10	PEM	0.024	Zahl-Williams loams, 9 to 15 percent slopes	
WET52	9	PEM	0.127	Arnegard loam, 0 to 6 percent slopes	
WET53	12	PEM	0.063	Williams-Zahl loams, 3 to 6 percent slopes	
WET54	12	PEM	0.240	Zahl-Williams loams, 9 to 15 percent slopes	
WET55	12	PEM	0.0	Parnell silty clay loam	Parnell silty clay loam
WET56	12	PEM	0.285	Zahl-Williams loams, 6 to 9 percent slopes	
WET57	12	PEM	0.001	Zahl-Max loams, 15 to 60 percent slopes	
WET58	12	PEM	0.021	Zahl-Williams loams, 9 to 15 percent slopes	
WET59	12	PEM	0.0	Zahl-Max loams, 15 to 60 percent slopes	
WET60	12	PEM	0.0	Zahl-Max loams, 15 to 60 percent slopes	
WET61	12	PEM	0.477	Parnell silty clay loam	Parnell silty clay loam
WET62	13	PEM	0.010	Zahl-Williams loams, 9 to 15 percent slopes	
WET63	13	PEM	0.214	Zahl-Williams loams, 6 to 9 percent slopes	
WET64	9	PEM	0.261	Zahl-Williams loams, 6 to 9 percent slopes	
WET65	5	PEM	0.003	Zahl-Max loams, 15 to 60 percent slopes	
WET66	5	PEM	0.203	Zahl-Williams loams, 9 to 15 percent slopes	
WET67	5, 6	PEM	0.717	Southam silty clay loam	Southam silty clay loam
WET68	1	PEM	0.0	Zahl-Williams loams, 6 to 9 percent slopes	
WET69	3	PEM	0.0	Zahl-Williams loams, 9 to 15 percent slopes	
WET70	3	PEM	0.0	Zahl-Williams loams, 9 to 15 percent slopes	
WET71	2	PEM	0.468	Southam silty clay loam	Southam silty clay loam
WET72	2	PEM	0.300	Parnell silty clay loam	Parnell silty clay loam
WET73	4	PEM	0.043	Zahl-Williams loams, 9 to 15 percent slopes	

Table 7. Wetlands Identified within or Proximate to the Project Study Corridor

ID	Sheet-map No.	Cowardin Class	Size within Study Corridor (acre)	NRCS Mapped Soil Type (majority of polygon)	Hydric Soil Type Present
WET74	4	PEM	0.0	Southam silty clay loam	Southam silty clay loam
WET75	4	PEM	0.126	Wabek-Appam sandy loams, 6 to 25 percent slopes	
WET76	4	PEM	0.010	Hamerly-Parnell complex, 0 to 3 percent slopes	
WET77	4	PEM	0.080	Williams-Zahl loams, 3 to 6 percent slopes	
WET78	5	PFO	0.327	Southam silty clay loam	
WET79	5	PFO	0.001	Southam silty clay loam	
WET80	4	PEM	0.115	Zahl-Williams loams, 6 to 9 percent slopes	
WET81	4, 5	PEM	0.357	Zahl-Williams loams, 6 to 9 percent slopes	
WET82	5, 6	PEM	0.282	Southam silty clay loam	
WET83	5, 6	PEM	0.069	Zahl-Williams loams, 6 to 9 percent slopes	
WET84	6	PEM	0.0	Zahl-Williams loams, 6 to 9 percent slopes	
WET85	6	PEM	0.165	Zahl-Williams loams, 6 to 9 percent slopes	
WET86	6	PEM	0.255	Southam silty clay loam	Southam silty clay loam
WET87	6	PEM	0.0	Zahl-Williams loams, 6 to 9 percent slopes	
WET88	5, 6	PEM	0.067	Zahl-Williams loams, 9 to 15 percent slopes	
WET89	5, 9	PEM	0.029	Zahl-Williams loams, 6 to 9 percent slopes	
WET90	5, 9	PEM	0.006	Zahl-Williams loams, 6 to 9 percent slopes	
WET91	9	PEM	0.0	Zahl-Williams loams, 9 to 15 percent slopes	
WET92	9, 10, 13	PEM	0.451	Parnell silty clay loam	Parnell silty clay loam
WET93	13	PEM	0.248	Williams-Zahl loams, 3 to 6 percent slopes	
WET94	9, 10	PEM	0.027	Zahl-Williams loams, 9 to 15 percent slopes	
WET95	6	PEM	0.123	Max-Zahl-Arnegard loams, 9 to 35 percent slopes, very stony	
WET96	11, 12	PEM	0.155	Zahl-Williams loams, 9 to 15 percent slopes	
WET97	12	PEM	0.185	Zahl-Williams loams, 6 to 9 percent slopes	
WET98	12	PEM	0.0	Williams-Zahl loams, 3 to 6 percent slopes	
WET99	8	PEM	0.016	Zahl-Williams loams, 6 to 9 percent slopes	
WET100	8	PEM	0.056	Zahl-Williams loams, 6 to 9 percent slopes	

Note that Appendix B provides photographs of the following wetlands: WET2-Photos 1, 2; WET10-Photos 8-10; WET15-Photos 4-6; WET36-Photo 16; WET42-Photo 14; WET72-Photo 3; WET79-Photo 7; WET83-Photo11; WET84-Photo 15; WET88-Photo 13; and WET95-Photo 12.

All wetland boundaries within the Project study corridor were delineated in the field with a GPS. Some portions of wetlands that extended well beyond the boundaries of the Project study corridor were delineated based on aerial maps using ArcGIS software to allow for micro-siting of Project features while keeping on-the-ground field surveys within the rights-of-way approved by landowners for site access. Desktop efforts conducted in this manner were consistent with the offsite methods described in USACE 1987.

4.5 Streams

All mapped “blue lines” on the USGS NHD (USGS 2010) and the NWI were examined during the June-July 2010 field effort within the Project study corridor. Upon examination, none of the blue line streams

intersecting the Project study corridor lacked bed, bank and channel features and would not qualify as a “waters of the U.S.” under the definitions provided by the USACE. The typical “non-stream” feature shown as a blue line was a relict stream, the stream features of which had been lost by decades of plowing, cropping, and contour-smoothing. These relict drainages typically lacked any indication that flow is concentrated for more than a few yards; rather precipitation directly infiltrates or is conveyed to lower areas by sheet flow. Some of the relict drainages exhibit swale-like morphology but lack a surface water connection with other waters.

5.0 WETLAND FUNCTIONS AND VALUES

All wetlands identified from the Project survey corridor were prairie potholes. Murkin (1998) describes several hydrologic functions that prairie pothole wetlands provide, and which are generally assumed to be true for the wetlands evaluated at the Project, including:

- *Control and storage of surface water* – This function is especially important during spring runoff and rainfall events when wetlands store excess precipitation and reduce the intensity of downstream flooding and soil erosion.
- *Recharge of groundwater supplies* – Wetlands that discharge groundwater may serve as local or regional groundwater sources.
- *Sinks for excess nutrients* – Through complex nutrient cycling and foodweb dynamics, wetlands reduce nutrient concentrations from waters.
- *Vascular plant production and carbon storage* – Wetland plants in the prairie potholes produce large amounts of carbon compared with most upland plant communities. This carbon is typically retained in the characteristic closed basins of these wetland systems.
- *Filters for sediments and chemicals* – Wetlands, especially shallow vegetated wetlands, reduce water flow and allow sediments and chemicals to settle out; waters that are discharged to the receiving watershed (e.g., overflow or groundwater) are likely to have reduced chemical and sediment concentrations.
- *Other hydrologic functions* – Wetlands may contribute to local rainfall; removal of wetlands may affect rainfall inputs and groundwater recharge.
- *Fish and Amphibian production* – Site-specific potholes may support healthy fisheries and amphibian production.

The presence of United States Fish and Wildlife Service (USFWS) conservation easements and Waterfowl Production Areas (WPA) that occur near the Project Area demonstrate functions and values that prairie potholes provide to wildlife. According to the USFWS, nearly 95 percent of WPAs occur in the prairie pothole region; a third of these areas occur in North Dakota alone (USFWS undated). These wetlands provide habitat and forage for a wide variety of waterfowl, shorebirds, grassland birds, plants, insects and other wildlife (USFWS 2009b), including species protected by the Endangered Species Act (ESA), the Migratory Bird Treaty Act (MBTA), and the Bald and Golden Eagle Protection Act (BGEPA). WPAs also offer societal values; these areas are generally open to the public and used for a variety of recreation purposes such as hunting, fishing, boating, and bird watching among many others. During wetland surveys, numerous incidental wildlife observations were made including nesting waterfowl such as blue-winged teal (*Anas discors*), northern shoveler (*Anas clypeata*), and mallard (*Anas platyrhynchos*); shorebirds such as willet (*Catoptrophorus semipalmatus*), marbled godwit (*Limosa fedoa*), and American bittern (*Botaurus lentiginosus*); passerines such as common yellowthroat (*Geothlypis trichas*), red-winged blackbird (*Agelaius phoeniceus*), and black tern (*Chlidonias niger*); and herpetiles such as northern leopard frogs (*Rana pipiens*) and smooth green snakes (*Liochlorophis vernalis*).

6.0 CONCLUSIONS AND RECOMMENDATIONS

One hundred wetlands were observed and evaluated during the field assessment. A total of 82 wetlands were delineated within a designated Project study corridor, which includes the Project construction footprint. An additional 18 wetlands were delineated in areas proximal to, but outside of, the Project study corridor and within the Project Area.

Based on careful examination in the field, none of the delineated wetlands appear to have a hydrologic connection (i.e., significant nexus) to TNW. For this reason, Tetra Tech has concluded that none of the 82 wetlands in the Project study corridor are jurisdictional. Informal discussions with the USACE in the Bismarck, North Dakota office would clarify the need for a formal jurisdictional determination for these Project wetlands in the event that permanent impacts (i.e., the conversion of wetland covertype from forested to emergent or scrub-shrub, or conversion to a non-wetland use), are anticipated due to Project construction.

Following USACE guidance documents, Tetra Tech concludes that no USACE-jurisdictional wetlands or waters of the U.S are present in the Project study corridor and therefore no permit from the USACE is required. Furthermore, Tetra Tech has reviewed the USACE regional permit conditions on its Nationwide Permits (NWP) and does not believe that any would be prohibitive to construction or operation of the Project. Regional conditions apply to wetlands classified as fens; to waters adjacent to natural springs; to Missouri River, including Lake Sakakawea and Lake Oahe; to historic properties; and to regulated activities in high quality (class III) waters during specific seasons. No fens were identified during the delineation, nor were any of the other conditions that could prevent a NWP from being obtained for the Project, if necessary.

Tetra Tech concludes that all delineated wetlands should be considered “waters of the state” and therefore under the jurisdiction of the state of North Dakota. After the final Project layout has been determined and permanent impacts on waters of the state calculated, formal consultation with the State Engineer’s Office should occur in order to confirm that no state permits, such a drain permit, are required.

In keeping with the spirit of EO 11990, CPV has committed to avoiding and minimizing impacts on all wetlands to the extent practicable. This is also consistent with the North Dakota Public Service Commission’s recommended avoidance areas which include “woodlands and wetlands” as listed in the NDAC. Tetra Tech recommends that prior to construction, a wetlands scientist familiar with the Project should accompany the Project engineer in a site visit and walkover of the final layout to ensure that additional wetland impacts would not be caused by changes in the Project layout.

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FIGURES

FIGURE 1

Vicinity Map

Ashley Wind Energy Project
McIntosh County, North Dakota

Wetland Report
Vicinity Map



Legend

Project Features

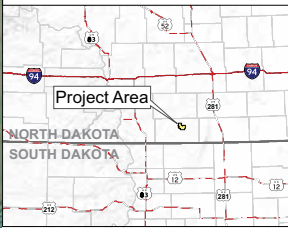
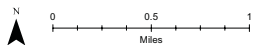
- Project Boundary
- Proposed Turbine
- Proposed Permanent Met Tower
- Access Road
- Study Area Footprint
- Proposed Buried Collector Line
- Proposed Laydown/O&M Building
- Proposed Substation
- Batch Plant Location
- Non-Leased Parcel

Transportation

- County or Local Road

Hydrology

- Intermittent Stream
- NWI Wetland
- Surveyed Wetland



Source: BTS, NAIP (2009), NWI (2009), NRCS, NHD

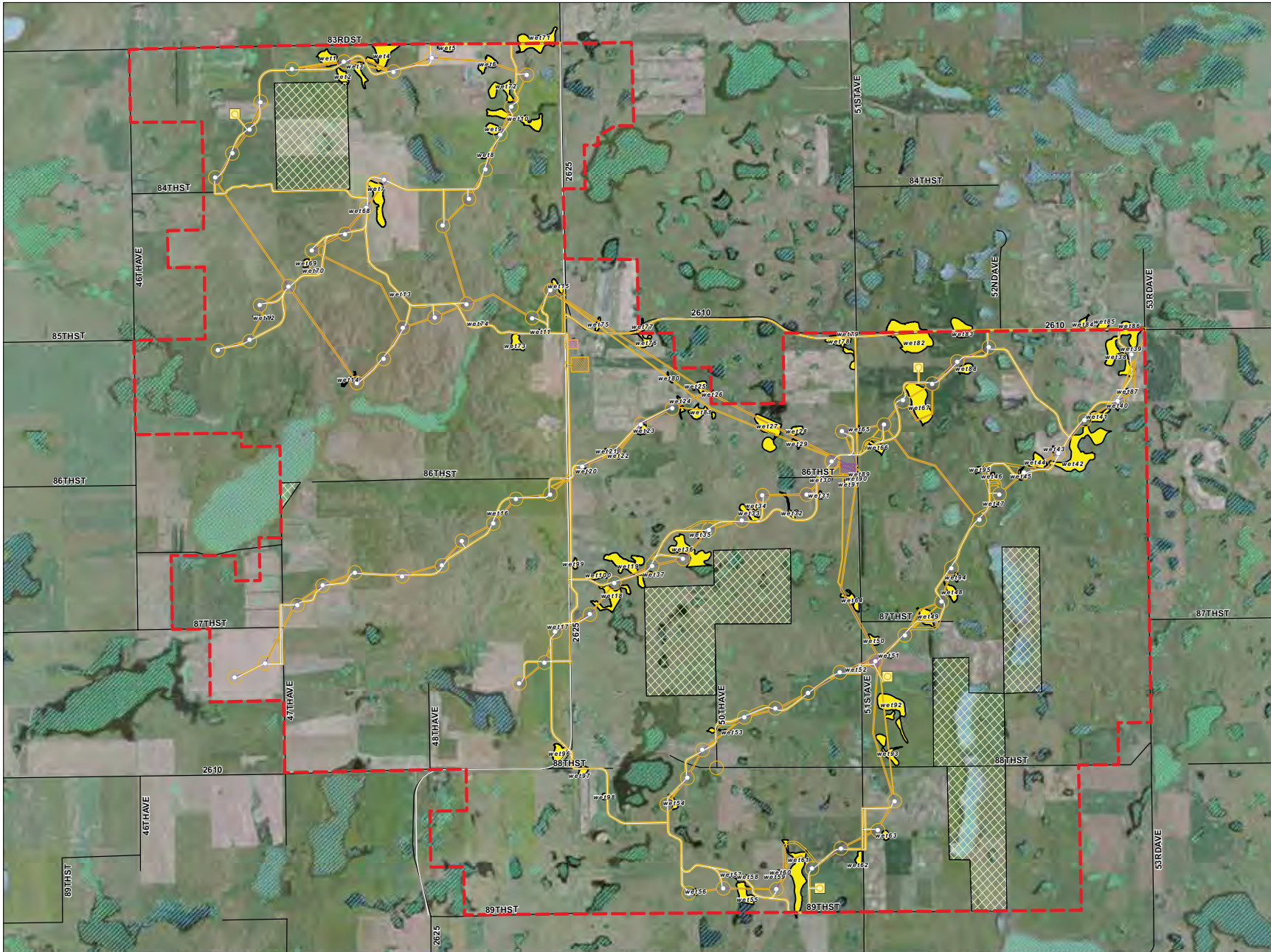


FIGURE 2

Wetland Delineation Results (Sheetmaps 1-13)

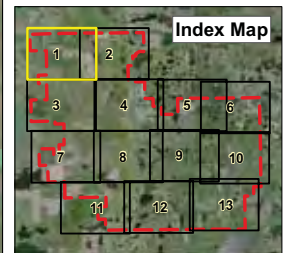
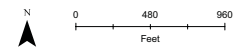
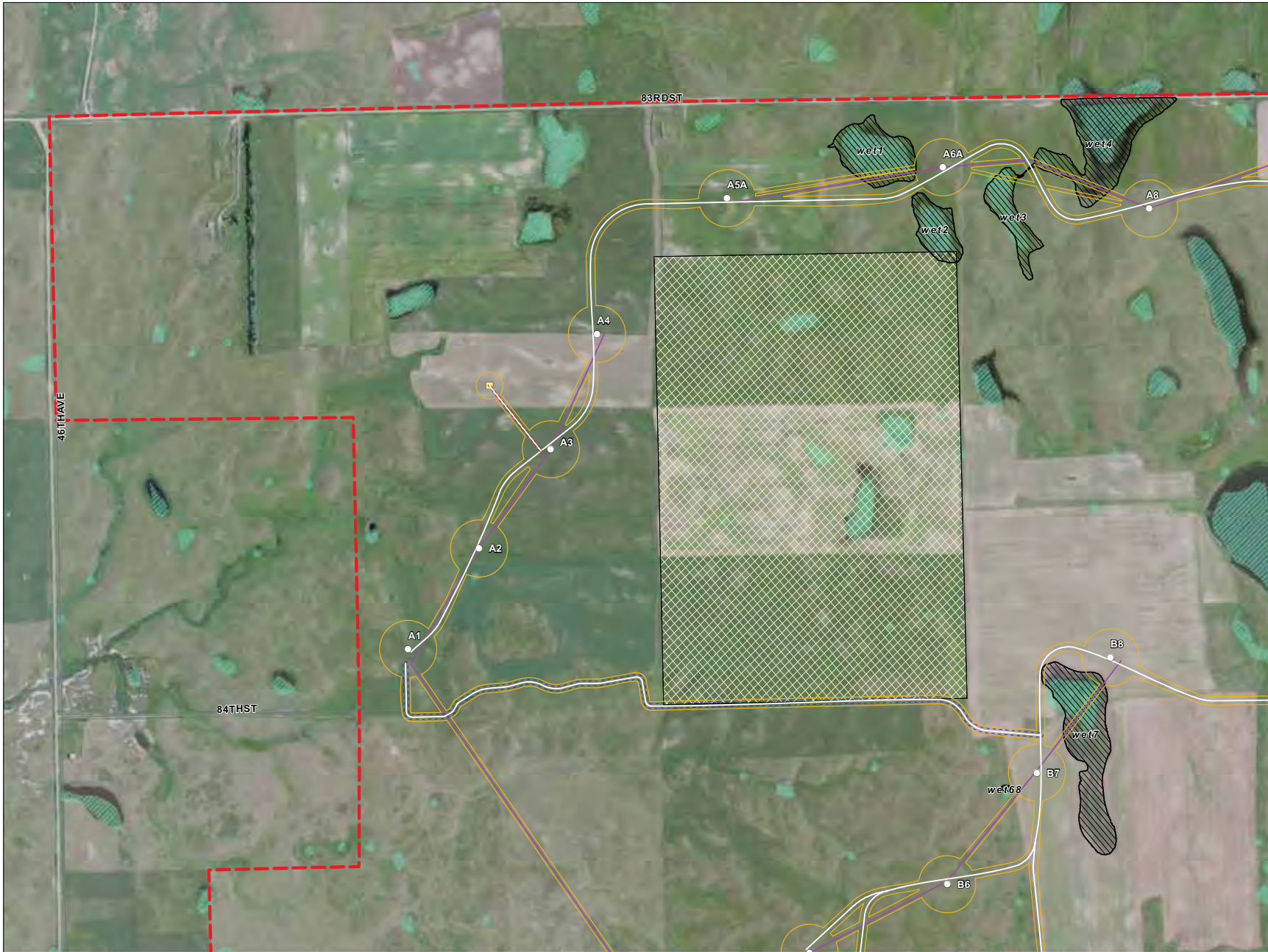
Ashley Wind Energy Project
 McIntosh County, North Dakota
 Sheetmap 1
 Wetland Report



Legend

- Project Features**
- Project Boundary
 - Survey Corridor
 - Proposed Turbine
 - Proposed Permanent Met Tower
 - Access Road
 - Spur Road
 - Crane Path
 - Proposed Buried Collector Line
 - Proposed Laydown/O&M Building
 - Proposed Substation
 - Batch Plant Location
 - Non-Leased Parcel

- Hydrology**
- Intermittent Stream
 - NWI Wetland
 - Surveyed Wetland



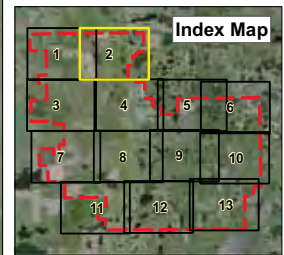
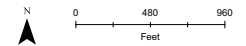
Source: BTS, NAIP (2009), NWI (2009), NRCS, NHD

Ashley Wind Energy Project
 McIntosh County, North Dakota
 Sheetmap 2
 Wetland Report



Legend

- Project Features**
- Project Boundary
 - Survey Corridor
 - Proposed Turbine
 - Proposed Permanent Met Tower
 - Access Road
 - Spur Road
 - Crane Path
 - Proposed Buried Collector Line
 - Proposed Laydown/O&M Building
 - Proposed Substation
 - Batch Plant Location
 - Non-Leased Parcel
- Hydrology**
- Intermittent Stream
 - NWI Wetland
 - Surveyed Wetland



Source: BTS, NAIP (2009), NWI (2009), NRCS, NHD

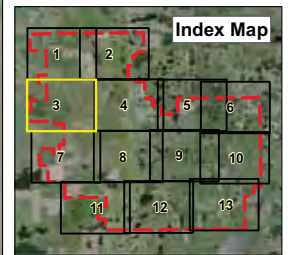
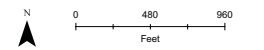


Ashley Wind Energy Project
 McIntosh County, North Dakota
 Sheetmap 3
 Wetland Report

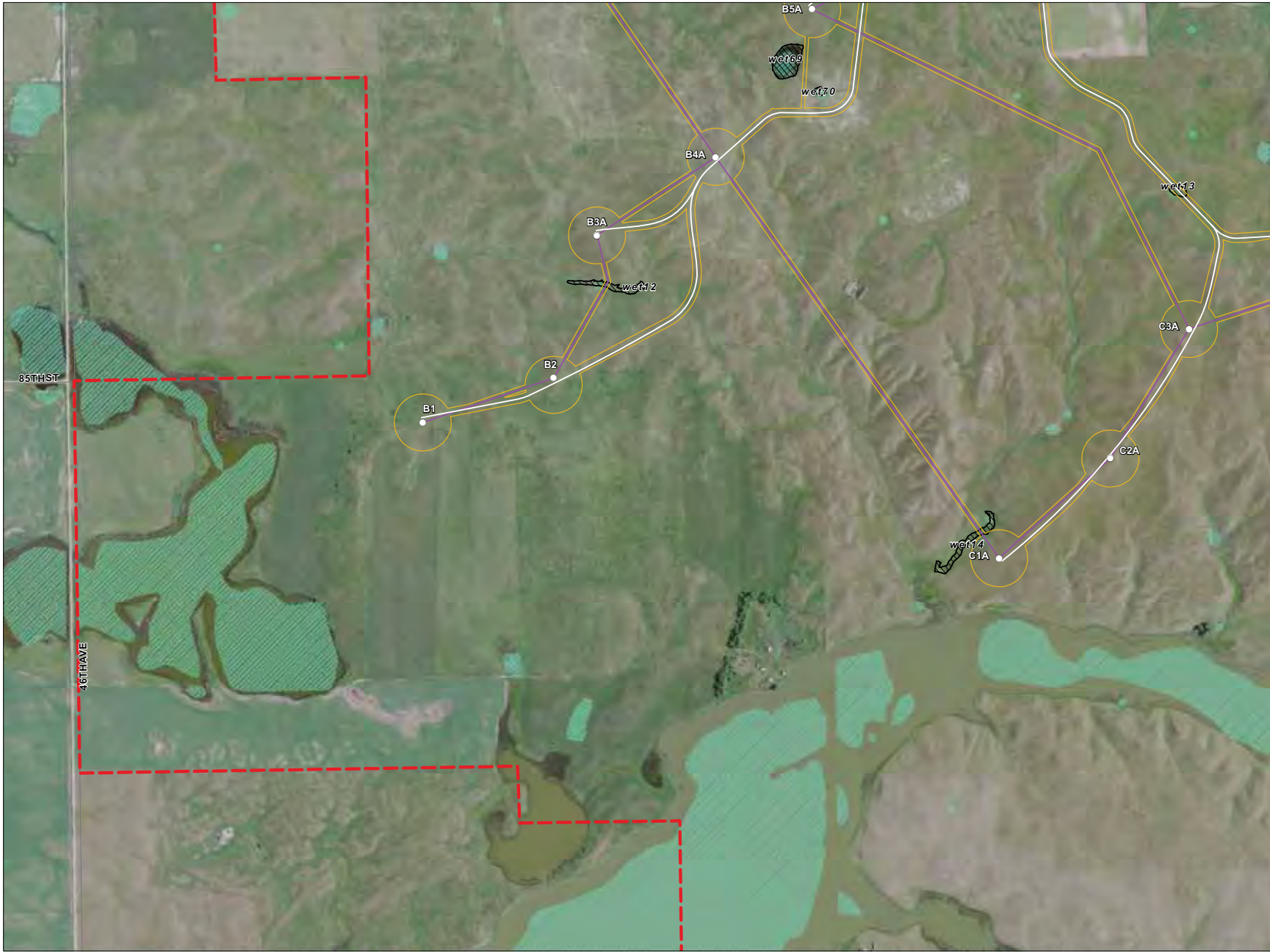


Legend

- Project Features**
- Project Boundary
 - Survey Corridor
 - Proposed Turbine
 - Proposed Permanent Met Tower
 - Access Road
 - Spur Road
 - Crane Path
 - Proposed Buried Collector Line
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 - Proposed Substation
 - Batch Plant Location
 - Non-Leased Parcel
- Hydrology**
- Intermittent Stream
 - NWI Wetland
 - Surveyed Wetland



Source: BTS, NAIP (2009), NWI (2009), NRCS, NHD

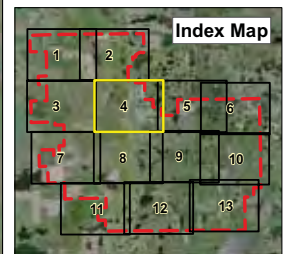
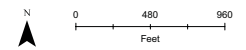


Ashley Wind Energy Project
 McIntosh County, North Dakota
 Sheetmap 4
 Wetland Report



Legend

- Project Features**
- Project Boundary
 - Survey Corridor
 - Proposed Turbine
 - Proposed Permanent Met Tower
 - Access Road
 - Spur Road
 - Crane Path
 - Proposed Buried Collector Line
 - Proposed Laydown/O&M Building
 - Proposed Substation
 - Batch Plant Location
 - Non-Leased Parcel
- Hydrology**
- Intermittent Stream
 - NWI Wetland
 - Surveyed Wetland



Source: BTS, NAIP (2009), NWI (2009), NRCS, NHD

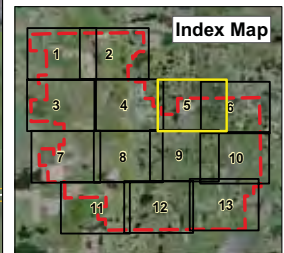
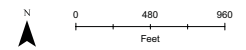


Ashley Wind Energy Project
 McIntosh County, North Dakota
 Sheetmap 5
 Wetland Report

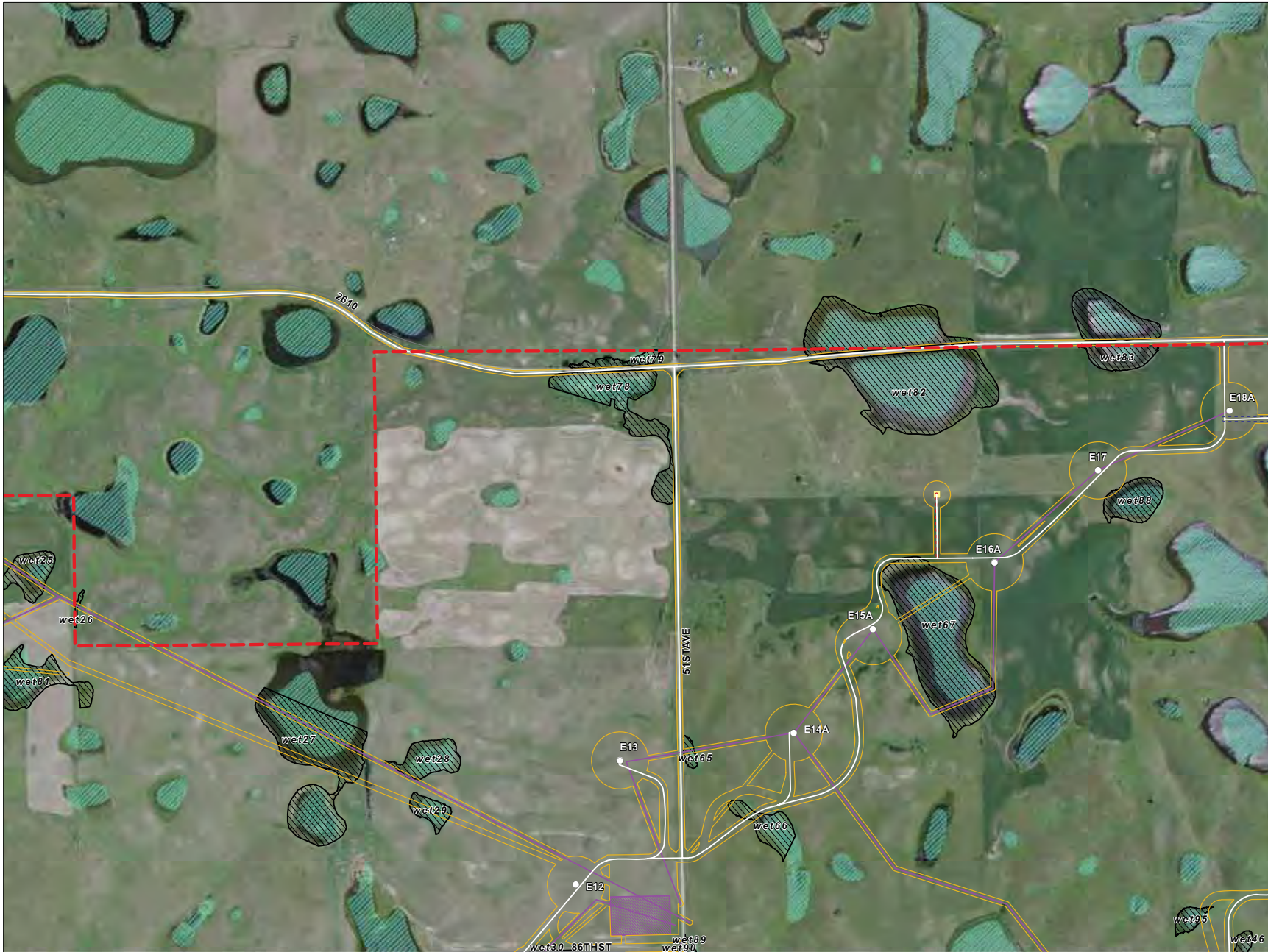


Legend

- Project Features**
- Project Boundary
 - Survey Corridor
 - Proposed Turbine
 - Proposed Permanent Met Tower
 - Access Road
 - Spur Road
 - Crane Path
 - Proposed Buried Collector Line
 - Proposed Laydown/O&M Building
 - Proposed Substation
 - Batch Plant Location
 - Non-Leased Parcel
- Hydrology**
- Intermittent Stream
 - NWI Wetland
 - Surveyed Wetland



Source: BTS, NAIP (2009), NWI (2009), NRCS, NHD

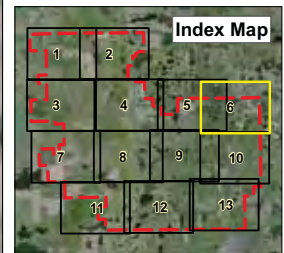
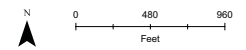


Ashley Wind Energy Project
 McIntosh County, North Dakota
 Sheetmap 6
 Wetland Report

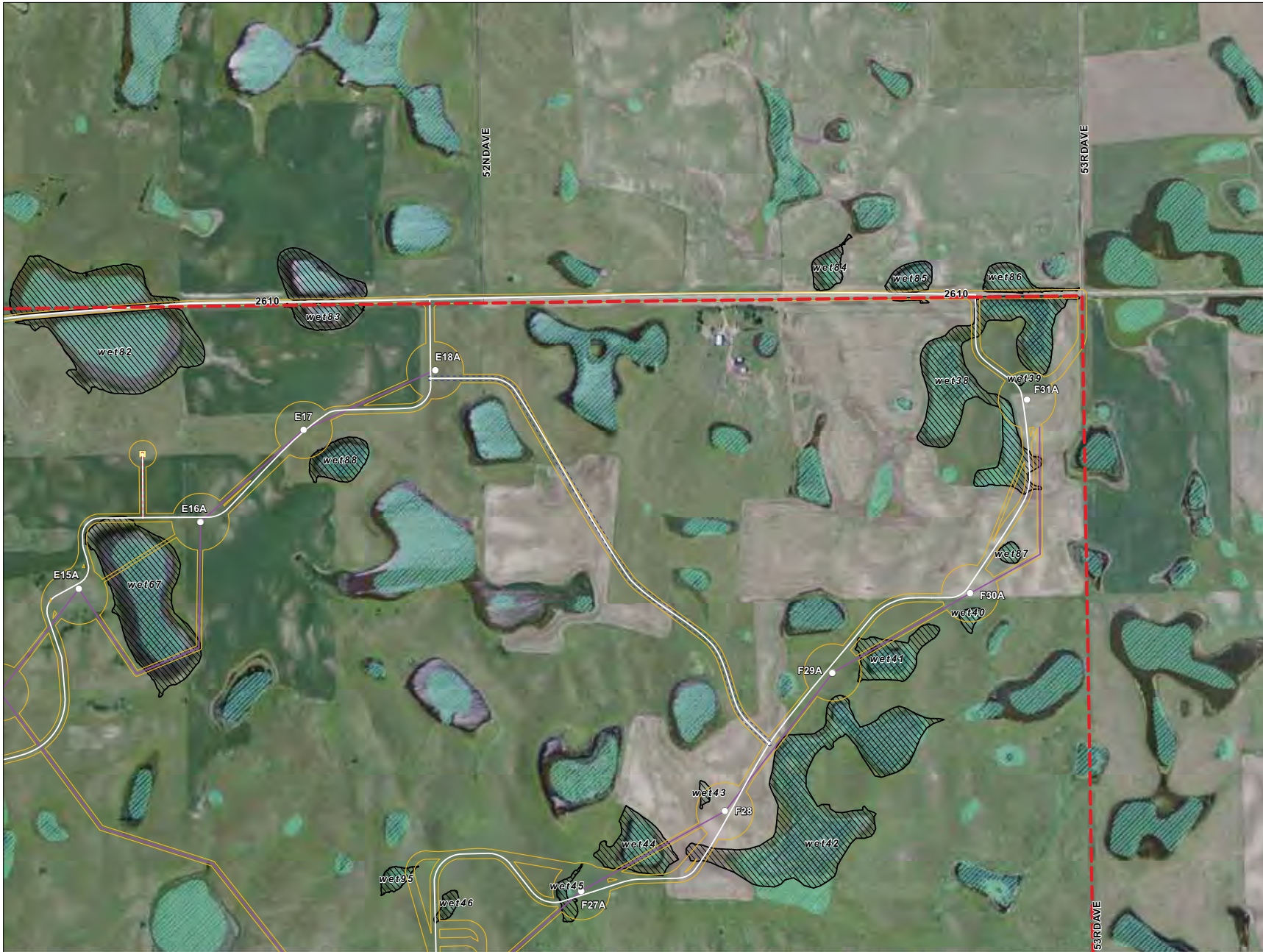


Legend

- Project Features**
- Project Boundary
 - Survey Corridor
 - Proposed Turbine
 - Proposed Permanent Met Tower
 - Access Road
 - Spur Road
 - Crane Path
 - Proposed Buried Collector Line
 - Proposed Laydown/O&M Building
 - Proposed Substation
 - Batch Plant Location
 - Non-Leased Parcel
- Hydrology**
- Intermittent Stream
 - NWI Wetland
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Source: BTS, NAIP (2009), NWI (2009), NRCS, NHD

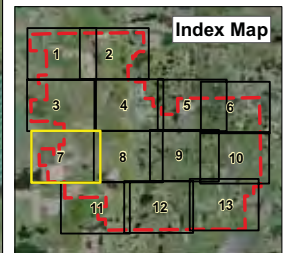
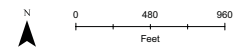


Ashley Wind Energy Project
 McIntosh County, North Dakota
 Sheetmap 7
 Wetland Report

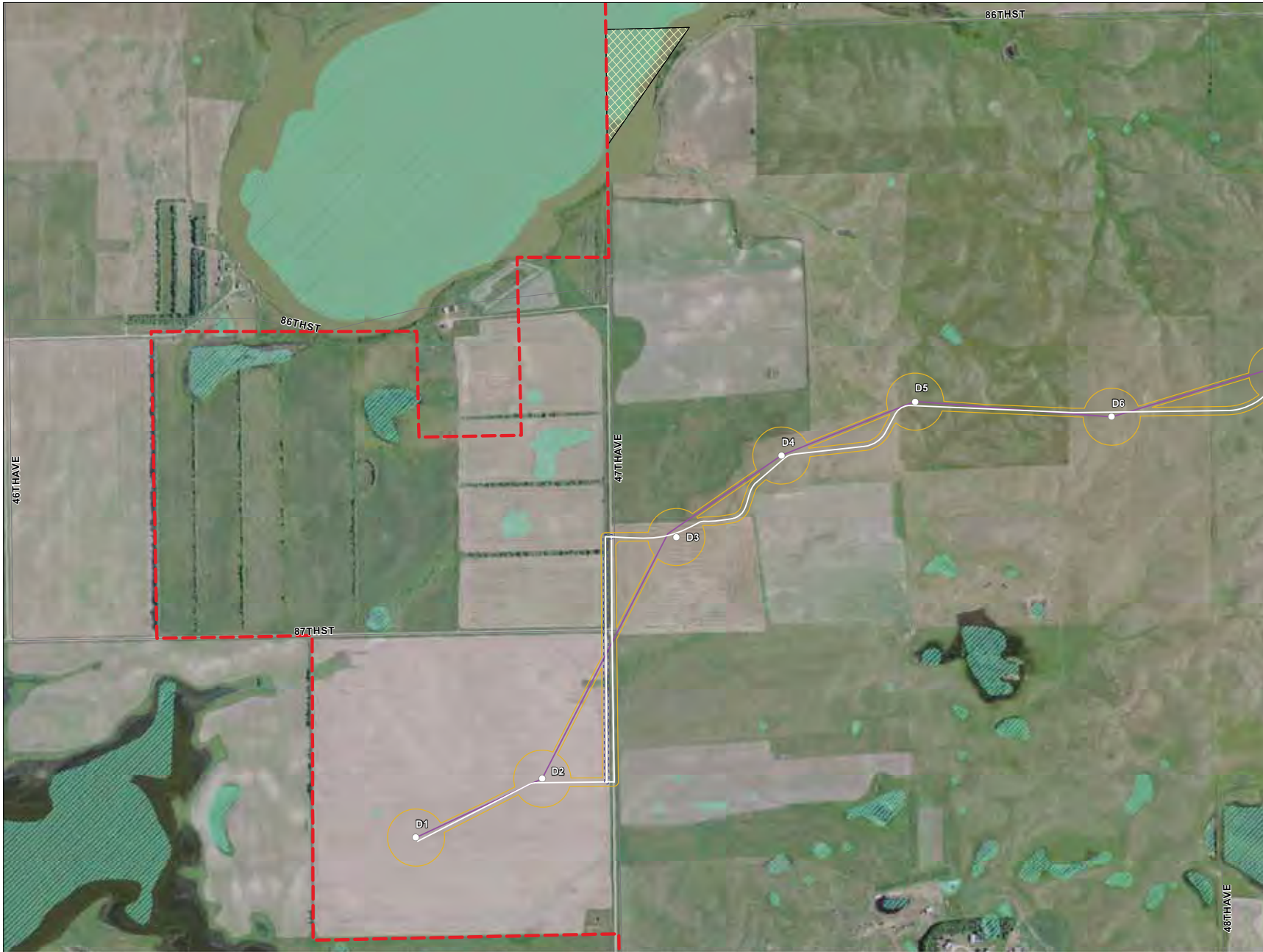


Legend

- Project Features**
- Project Boundary
 - Survey Corridor
 - Proposed Turbine
 - Proposed Permanent Met Tower
 - Access Road
 - Spur Road
 - Crane Path
 - Proposed Buried Collector Line
 - Proposed Laydown/O&M Building
 - Proposed Substation
 - Batch Plant Location
 - Non-Leased Parcel
- Hydrology**
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 - Surveyed Wetland



Source: BTS, NAIP (2009), NWI (2009), NRCS, NHD

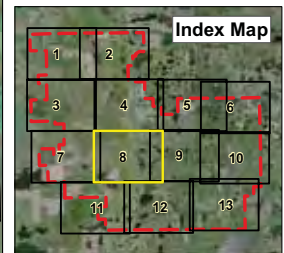
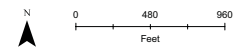


Ashley Wind Energy Project
 McIntosh County, North Dakota
 Sheetmap 8
 Wetland Report

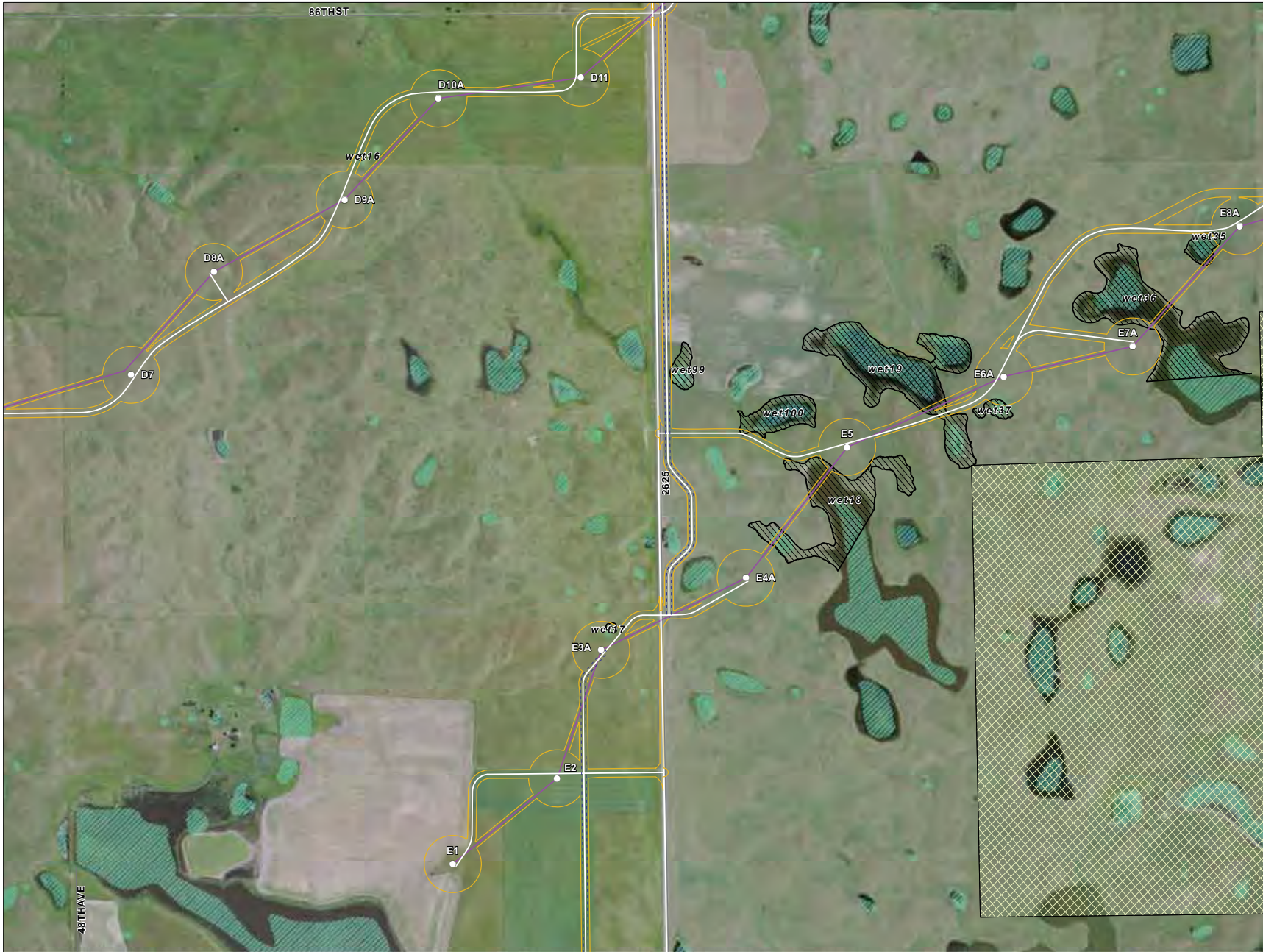


Legend

- Project Features**
- Project Boundary
 - Survey Corridor
 - Proposed Turbine
 - Proposed Permanent Met Tower
 - Access Road
 - Spur Road
 - Crane Path
 - Proposed Buried Collector Line
 - Proposed Laydown/O&M Building
 - Proposed Substation
 - Batch Plant Location
 - Non-Leased Parcel
- Hydrology**
- Intermittent Stream
 - NWI Wetland
 - Surveyed Wetland



Source: BTS, NAIP (2009), NWI (2009), NRCS, NHD

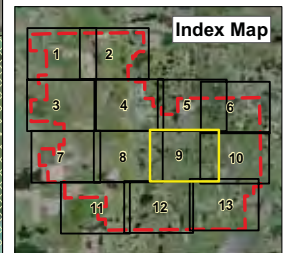
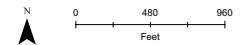


Ashley Wind Energy Project
 McIntosh County, North Dakota
 Sheetmap 9
 Wetland Report

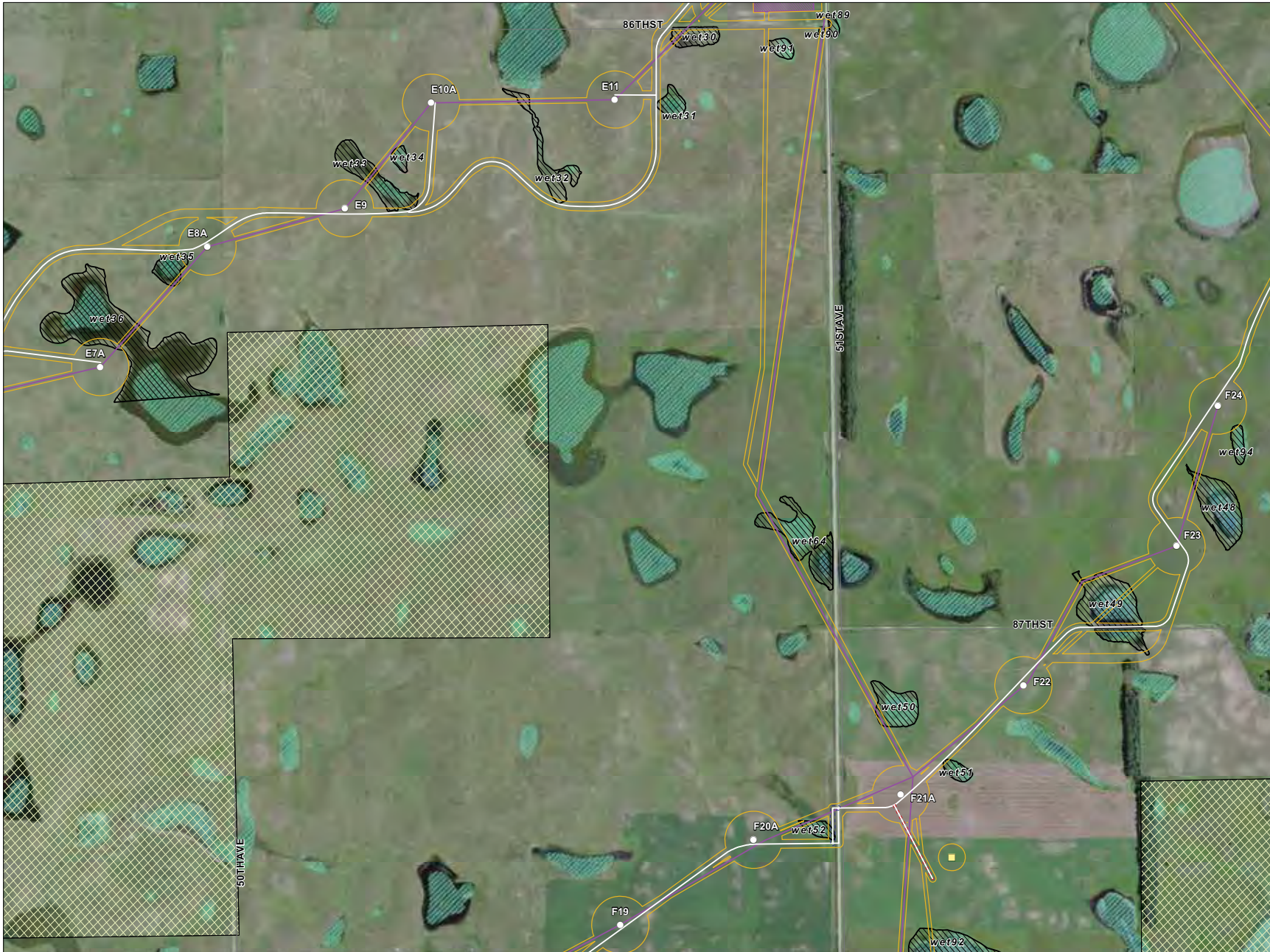


Legend

- Project Features**
- Project Boundary
 - Survey Corridor
 - Proposed Turbine
 - Proposed Permanent Met Tower
 - Access Road
 - Spur Road
 - Crane Path
 - Proposed Buried Collector Line
 - Proposed Laydown/O&M Building
 - Proposed Substation
 - Batch Plant Location
 - Non-Leased Parcel
- Hydrology**
- Intermittent Stream
 - NWI Wetland
 - Surveyed Wetland



Source: BTS, NAIP (2009), NWI (2009), NRCS, NHD

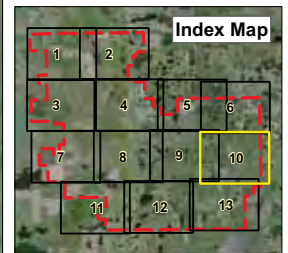
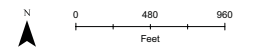
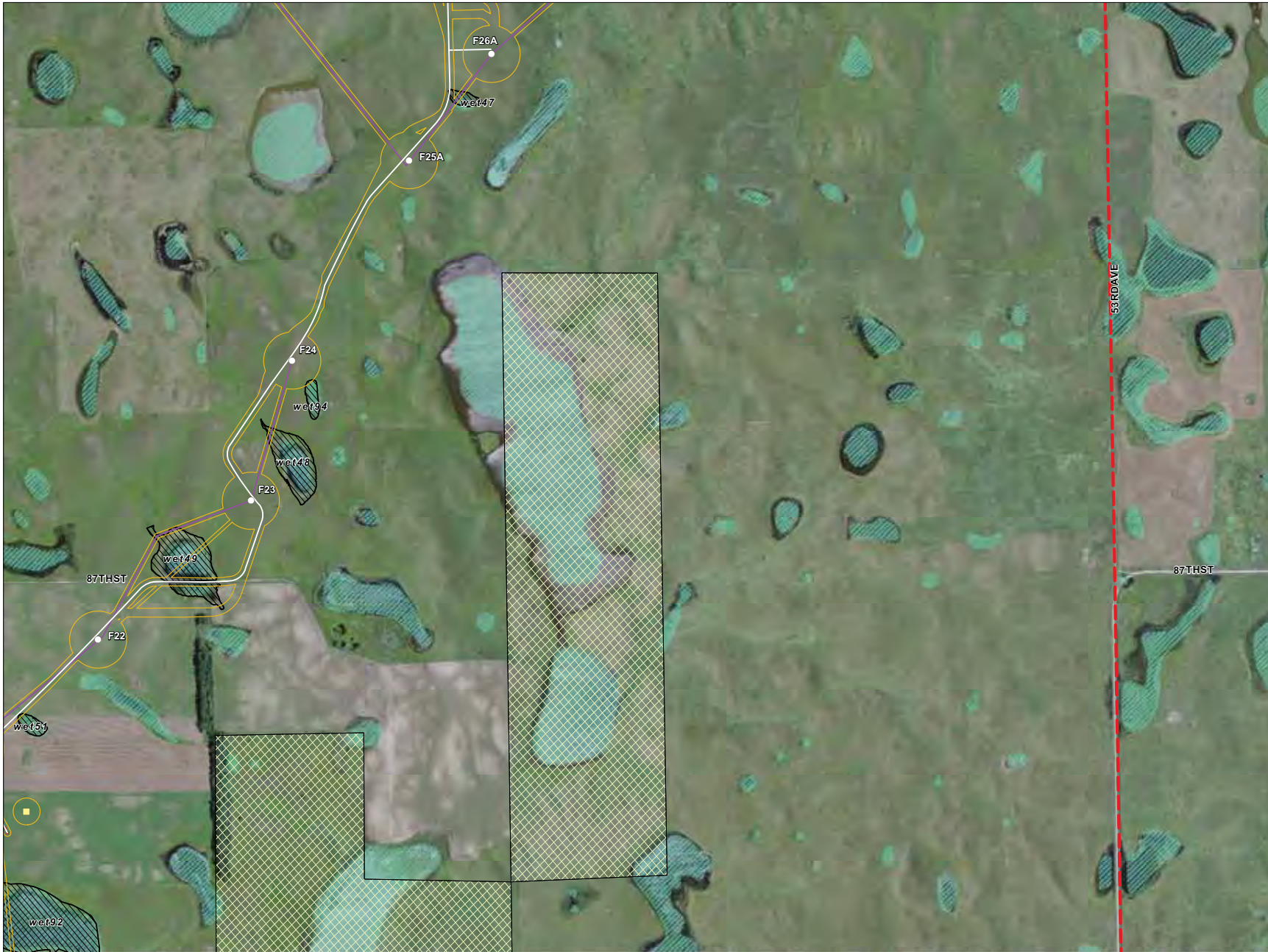


Ashley Wind Energy Project
 McIntosh County, North Dakota
 Sheetmap 10
 Wetland Report



Legend

- Project Features**
- Project Boundary
 - Survey Corridor
 - Proposed Turbine
 - Proposed Permanent Met Tower
 - Access Road
 - Spur Road
 - Crane Path
 - Proposed Buried Collector Line
 - Proposed Laydown/O&M Building
 - Proposed Substation
 - Batch Plant Location
 - Non-Leased Parcel
- Hydrology**
- Intermittent Stream
 - NWI Wetland
 - Surveyed Wetland



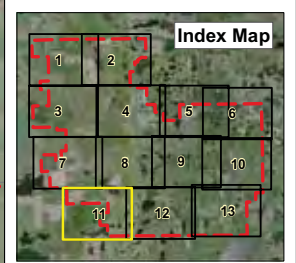
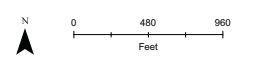
Source: BTS, NAIP (2009), NWI (2009), NRCS, NHD

Ashley Wind Energy Project
 McIntosh County, North Dakota
 Sheetmap 11
 Wetland Report



Legend

- Project Features**
- Project Boundary
 - Survey Corridor
 - Proposed Turbine
 - Proposed Permanent Met Tower
 - Access Road
 - Spur Road
 - Crane Path
 - Proposed Buried Collector Line
 - Proposed Laydown/O&M Building
 - Proposed Substation
 - Batch Plant Location
 - Non-Leased Parcel
- Hydrology**
- Intermittent Stream
 - NWI Wetland
 - Surveyed Wetland



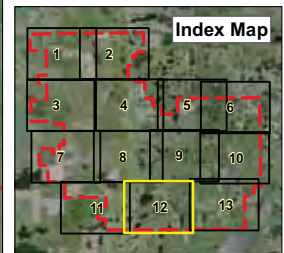
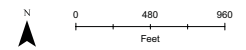
Source: BTS, NAIP (2009), NWI (2009), NRCS, NHD

Ashley Wind Energy Project
 McIntosh County, North Dakota
 Sheetmap 12
 Wetland Report



Legend

- Project Features**
- Project Boundary
 - Survey Corridor
 - Proposed Turbine
 - Proposed Permanent Met Tower
 - Access Road
 - Spur Road
 - Crane Path
 - Proposed Buried Collector Line
 - Proposed Laydown/O&M Building
 - Proposed Substation
 - Batch Plant Location
 - Non-Leased Parcel
- Hydrology**
- Intermittent Stream
 - NWI Wetland
 - Surveyed Wetland



Source: BTS, NAIP (2009), NWI (2009), NRCS, NHD

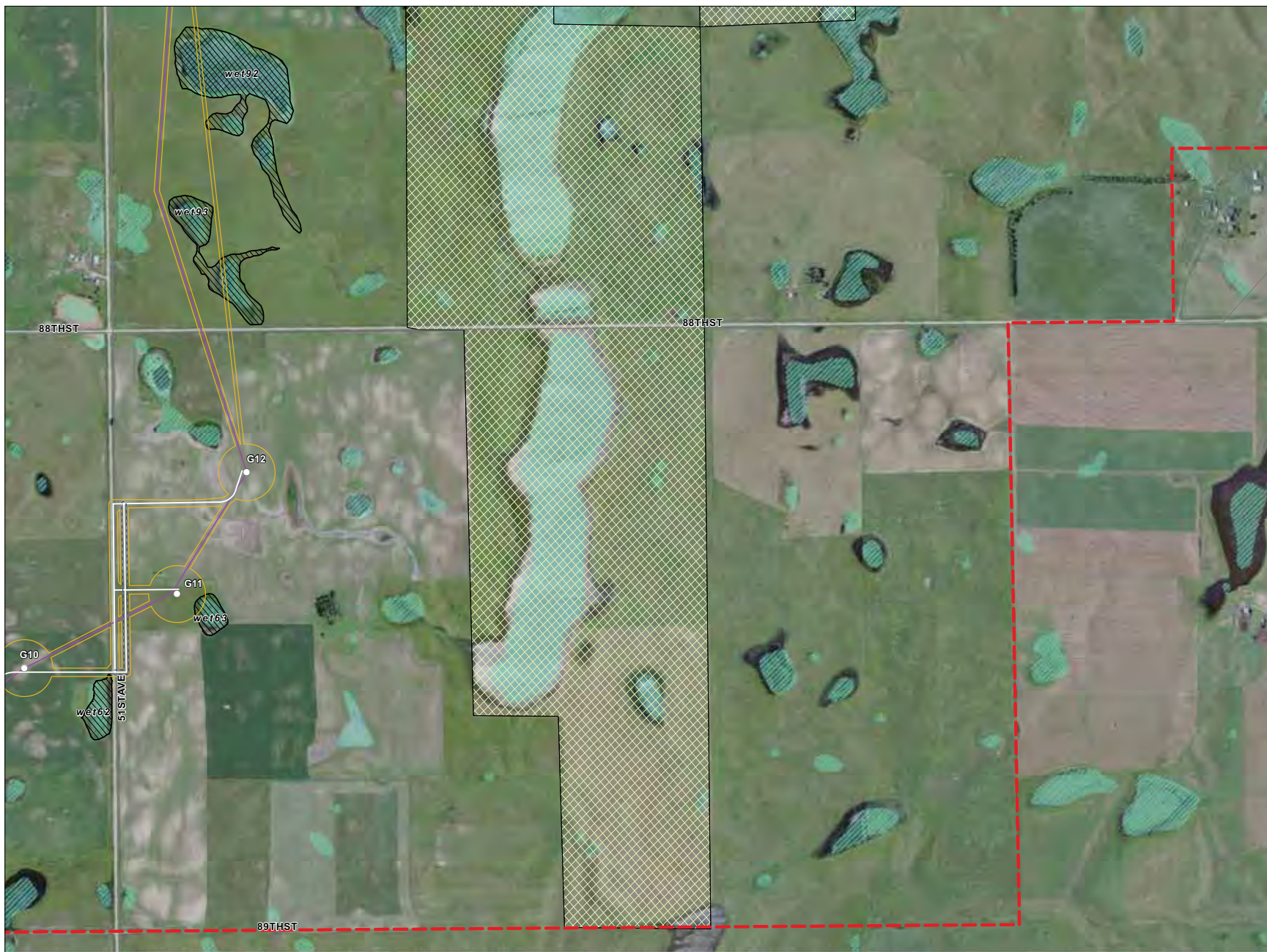
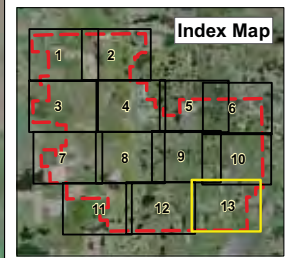
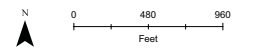


Ashley Wind Energy Project
 McIntosh County, North Dakota
 Sheetmap 13
 Wetland Report



Legend

- Project Features**
- Project Boundary
 - Survey Corridor
 - Proposed Turbine
 - Proposed Permanent Met Tower
 - Access Road
 - Spur Road
 - Crane Path
 - Proposed Buried Collector Line
 - Proposed Laydown/O&M Building
 - Proposed Substation
 - Batch Plant Location
 - Non-Leased Parcel
- Hydrology**
- Intermittent Stream
 - NWI Wetland
 - Surveyed Wetland



APPENDIX A

Wetland Data Forms

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/22/2010
Applicant/Owner:		State: ND	Sampling Point: WT1
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.): Prairie pothole, toe of slope		Local relief (concave, convex, none) none	Slope (%): 0
Subregion (LRR): Northern Great Plains	Lat: 46°12'49.5070"N	Long: 99°23'24.4968"W	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. Not applicable				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	x 1 =
1. No shrubs				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. Anemone canadensis	30	yes	FACW	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Phalaris arundinacea	20	yes	OBL	<input checked="" type="checkbox"/>	2. Dominance Test is >50%
3. Juncus balticus	10	no	FACW+	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Poa pratensis	10	no	FACU	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Utricularia vulgaris	10	no	OBL	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Eleocharis palustris	5	no	OBL		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7. Typha augustifolia	5	no	OBL		
8. Polygonum sp.	5	no			
9. Carex sp.	5	no			
	100	= Total Cover			
Woody Vine Stratum (Plot size: 30')				Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1. Not applicable					
		= Total Cover			
% Bare Ground in Herb Stratum:					
Remarks: The majority of this prairie pothole is dominated by Sprangletop (Scolochloa festucacea) but it is outside the sample plot.					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	10 YR 2/1	100	—	—	—	—	Clay loam	
7-11	10 YR 5/1	60	10 YR 4/6	5	C	M	Clay loam	
			GLE Y 3/N	35	RM	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 :		
<input type="checkbox"/>	Histosol (A1)			<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)			<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)			<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input type="checkbox"/>	Hydrogen Sulfide (A4)			<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)			<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)			<input checked="" type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)
<input checked="" type="checkbox"/>	Depleted Below Dark Surface (A11)			<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Thick Dark Surface (A12)			<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)			<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)			<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)			
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:	—			Hydric Soil Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Depth (inches):	—							
Remarks: Soil is very dark throughout; oxidized root channels								

HYDROLOGY

Wetland Hydrology Indicators:									
Primary Indicators (minimum of one required; check all that apply)						Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)			<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/>	High Water Table (A2)			<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)			<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10)	
<input type="checkbox"/>	Water Marks (B1)			<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)			<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)			<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)			<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)			<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)						<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)								
Field Observations:									
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches):	Water Hydrology Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Water Table Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches): 3						
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches):						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial is available.									
Remarks: Sample plot is 1' out from standing water in a prairie pothole.									

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/22/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT2
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.): Hill slope		Local relief (concave, convex, none) concave	Slope (%): 1
Subregion (LRR): Northern Great Plains	Lat: 46°12'48.0200"N	Long: 99°23'23.4351"W	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. Not applicable				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		<u>Total % Cover of:</u>	<u>Multiply by:</u>
Sapling/Shrub Stratum (Plot size: 15')				OBL species	x 1 =
1. Not applicable				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. <i>Spartina pectinata</i>	55	yes	FACW	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. <i>Juncus balticus</i>	20	yes	OBL	<input checked="" type="checkbox"/>	2. Dominance Test is >50%
3. <i>Anemone canadensis</i>	10	no	FACW	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. <i>Poa pratensis</i>	10	no	FACU	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. <i>Eleocharis palustris</i>	5	no	OBL	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. <i>Carex</i> sp.	2	no	—	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7. <i>Cirsium arvense</i>	2	no	FACU		
8. <i>Carex</i> sp.	1	no	—		
9. <i>Phalaris arundinacea</i>	1	no	FACW+		
		= Total Cover			
Woody Vine Stratum (Plot size: 30')				Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1. Not applicable					
	—	= Total Cover			
% Bare Ground in Herb Stratum: 0					
Remarks: Cordgrass dominated edge of prairie pothole wetland.					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	10 YR 2/1	100	—	—	—	—	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.)						Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/>	Histosol (A1)			<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)			<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)			<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input type="checkbox"/>	Hydrogen Sulfide (A4)			<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)			<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)			<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)			<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input checked="" type="checkbox"/>	Thick Dark Surface (A12)			<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)			<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)			<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)			
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:	—			Hydric Soil Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Depth (inches):	—							
Remarks: Sulfuric odor								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)						Secondary Indicators (minimum of two required)		
<input type="checkbox"/>	Surface Water (A1)			<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)
<input type="checkbox"/>	High Water Table (A2)			<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/>	Saturation (A3)			<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input type="checkbox"/>	Drainage Patterns (B10)
<input type="checkbox"/>	Water Marks (B1)			<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)			<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)			<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Algal Mat or Crust (B4)			<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)			<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)						<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Depth (inches):	—		Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Water Table Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches):	7				
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches):	surface				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photos								
Remarks:								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/23/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT3
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.): Prairie pothole		Local relief (concave, convex, none) flat	Slope (%):
Subregion (LRR): Northern Great Plains	Lat: 46°12'50.38"N	Long: 99°23'12.02"W	Datum: NAD83
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks: Standing water at site			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. Not applicable				Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-):	2 (A)
2.				Total Number of Dominant Species Across All Strata:	3 (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	67 (A/B)
4.				Prevalence Index worksheet:	
	—	= Total Cover		Total % Cover of:	Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species	x 1 =
1. Not applicable				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. Polygonum amphibium	20	yes	FACW	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Spartina pectinata	20	yes	FACW	<input checked="" type="checkbox"/>	2. Dominance Test is >50%
3. Carex vulpinoidea	10	no	FACW	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Muhlenbergia glomerata	10	no	OBL	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Poa pratensis	15	yes	FACU	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Carex brevior	5	no	FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7. Carex praegracilis	5	no	FACW		
8. Juncus dudleyi	5	no	?		
9. Carex festucacea	5	no	FACU		
	95	= Total Cover			
Woody Vine Stratum (Plot size: 30')				Hydrophytic Vegetation Present?	
1. Not applicable				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
	—	= Total Cover			
% Bare Ground in Herb Stratum: 0					
Remarks: Can't key the polygonum to species					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	10 YR 2/1	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.)					Indicators for Problematic Hydric Soils ³ :			
<input type="checkbox"/>	Histosol (A1)			<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)			<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)			<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input type="checkbox"/>	Hydrogen Sulfide (A4)			<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)			<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)			<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)			<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input checked="" type="checkbox"/>	Thick Dark Surface (A12)			<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)			<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)			<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)			
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):					Hydric Soil Present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Type:	—							
Depth (inches):	—							
Remarks: Soil is completely saturated and very dark.								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)			<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)
<input checked="" type="checkbox"/>	High Water Table (A2)			<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/>	Saturation (A3)			<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input type="checkbox"/>	Drainage Patterns (B10)
<input type="checkbox"/>	Water Marks (B1)			<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)			<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)			<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Algal Mat or Crust (B4)			<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)			<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)						<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:					Water Hydrology Present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Surface Water Present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): 3" at 1 yd from hole					
Water Table Present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): 6" bgs					
Saturation Present? (includes capillary fringe)		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): surface					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photographs								
Remarks: Sample plot is saturated. Water fills the soil pit to a depth of 6" bgs.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/23/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT4
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.): Prairie pothole		Local relief (concave, convex, none) flat	Slope (%): 0
Subregion (LRR): Northern Great Plains	Lat: 46°12'50.90"N	Long: 99°23'08.11"W	Datum: NAD83
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks: Dense stands of Prairie cordgrass. Other spots in this prairie pothole feature Polygonum sp., reed canarygrass, baltic rush.			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. Not applicable				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' r)				OBL species	x 1 =
1. Not applicable				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' r)				Hydrophytic Vegetation Indicators:	
1. Spartina pectinata	70	No	FACW	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Muhlebergia glomerata	10	No	FACW+	<input checked="" type="checkbox"/>	2. Dominance Test is >50%
3. Agropyron smithii	5	No	FACU	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Teucrium canadense	5	No		<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Scirpus pungens	5	No	OBL	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Poa	2	No		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7. Willow dock	2	No			
	100	= Total Cover			
Woody Vine Stratum (Plot size: 30' r)				Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1. Not applicable					
	—	= Total Cover			
% Bare Ground in Herb Stratum: 0					
Remarks: See notes under summary.					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth (inches)	Matrix		Redox Features				Texture	Remarks	
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²			
0-10	10 YR 2/1								
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 :				
<input type="checkbox"/>	Histosol (A1)			<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)			<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)			<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)			<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)			<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)			<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)			<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input checked="" type="checkbox"/>	Thick Dark Surface (A12)			<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)			<input type="checkbox"/>	Redox Depressions (F8)		<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)			<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)								
Restrictive Layer (if present):					Hydric Soil Present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Type:									
Depth (inches):									
Remarks: Completely saturated—very dark.									

HYDROLOGY

Wetland Hydrology Indicators:									
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)				
<input checked="" type="checkbox"/>	Surface Water (A1)			<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/>	High Water Table (A2)			<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)			<input checked="" type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input type="checkbox"/>	Drainage Patterns (B10)	
<input type="checkbox"/>	Water Marks (B1)			<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)			<input checked="" type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)			<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)			<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)			<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)						<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)								
Field Observations:					Water Hydrology Present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Surface Water Present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): 3" at 1 yd from hole						
Water Table Present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): 6" bgs						
Saturation Present? (includes capillary fringe)		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): at surface						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photography was reviewed.									
Remarks: Standing water at the sample plot.									

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/23/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT5
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none) flat	Slope (%): 0
Subregion (LRR): Northern Great Plains	Lat: 46°12'56.11"N	Long: 99°22'28.89"W	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks: A fair amount of open water/bare ground at this site. The shoreline is Polygonum and the middle of the pothole looks like a Typua angustifolia stand.			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. Not applicable				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' r)				OBL species	x 1 =
1. Not applicable				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' r)				Hydrophytic Vegetation Indicators:	
1. Polygonum amphibium	50	yes	FACW	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Rumex mexicanus	15	no	FACW	<input checked="" type="checkbox"/>	2. Dominance Test is >50%
3. Nasturnium officinale	2	no	OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Muhlenbergia glomerata	2	no	FACW+	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Typha angustifolia	1	no		<input type="checkbox"/>	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' r)				Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1. Not applicable					
		= Total Cover			
% Bare Ground in Herb Stratum: 30					
Remarks: Leaves on the Polygonum are 5-3/4" long, 1-3/4" wide, entire, alternate; bright green; to 2 feet tall.					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0–10	10 YR 2/1	100					Loam	
10–15	10 YR 4/2	90	10 YR 3/6	10			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.)						Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/>	Histosol (A1)			<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)			<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)			<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input type="checkbox"/>	Hydrogen Sulfide (A4)			<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)			<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)			<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)
<input checked="" type="checkbox"/>	Depleted Below Dark Surface (A11)			<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Thick Dark Surface (A12)			<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)			<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)			<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)			
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):				Hydric Soil Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Type:								
Depth (inches):								
Remarks: Soil is very dark in the top 2/3 rd and has redox features in lower 1/3 rd .								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)						Secondary Indicators (minimum of two required)		
<input checked="" type="checkbox"/>	Surface Water (A1)			<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)
<input checked="" type="checkbox"/>	High Water Table (A2)			<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/>	Saturation (A3)			<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input type="checkbox"/>	Drainage Patterns (B10)
<input type="checkbox"/>	Water Marks (B1)			<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)			<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)			<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Algal Mat or Crust (B4)			<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)			<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)						<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:				Water Hydrology Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): 3" at 1 yard						
Water Table Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): 5						
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): surface						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:								
Remarks: prairie pothole								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/23/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT6
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.): ditch along road		Local relief (concave, convex, none) flat	Slope (%): 0
Subregion (LRR): Northern Great Plains	Lat: 46°12'49.6890"N	Long: 99°22'06.6044"W	Datum: NAD83
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input checked="" type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Wetland Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks: Wetland is in a roadside ditch. A collector line will cross this area. We are mapping the prairie pothole east of the roadside ditch together with this feature because they appear hydrologically connected.			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. Not applicable				Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-):	3 (A)
2.				Total Number of Dominant Species Across All Strata:	4 (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	75 (A/B)
4.				Prevalence Index worksheet:	
		= Total Cover		Total % Cover of:	Multiply by:
Sapling/Shrub Stratum (Plot size: 15' r)				OBL species	x 1 =
1. Not applicable				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' r)				Hydrophytic Vegetation Indicators:	
1. Typha augustifolia	10	yes	OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Phalaris arundicea	30	yes	FACW	<input checked="" type="checkbox"/>	2. Dominance Test is >50%
3. Rumex mexicanus	2	no	FACW	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Eleocharis palustris	5	yes	OBL	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Potamogeton	2	no	OBL	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Lemna minor	1	no		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7. Cirsium arvense	5	yes	NI		
8.					
9.					
		= Total Cover			
Woody Vine Stratum (Plot size: 30' r)				Hydrophytic Vegetation Present?	
1. Not applicable				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
		= Total Cover			
% Bare Ground in Herb Stratum: 60 bareground or open water					
Remarks:					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0–8	10 YR 2/1	60	3/4	10	RM	M		
8–13	10 YR 5/3	100	6/2	30		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 :		
<input type="checkbox"/>	Histosol (A1)			<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)			<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)			<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input type="checkbox"/>	Hydrogen Sulfide (A4)			<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)			<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)			<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)			<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Thick Dark Surface (A12)			<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)			<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)			<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)			
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:				Hydric Soil Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Depth (inches):								
Remarks: Highly redoximorphic—3 colors in the top 8". Hole collapses at 13" and fills with water.								

HYDROLOGY

Wetland Hydrology Indicators:									
Primary Indicators (minimum of one required; check all that apply)						Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)			<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/>	High Water Table (A2)			<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)			<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input type="checkbox"/>	Drainage Patterns (B10)	
<input type="checkbox"/>	Water Marks (B1)			<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)			<input checked="" type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)			<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)			<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)			<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)						<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)								
Field Observations:									
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches): surface	Water Hydrology Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Water Table Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches): surface						
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches): surface						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photos were reviewed.									
Remarks: This feature is a ditch on the west side of a farm house road. It looks to hydrologically be connected to a prairie pothole on the immediate west side of the road. They probably built the road through the pothole.									

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/24/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT7
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none) concave	Slope (%): 2
Subregion (LRR): Northern Great Plains	Lat: 46°12'03.6101"N	Long: 99°23'05.6715"W	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks: Large oblong depression forming wetland among otherwise tilled row crop fields			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:				
1. Not applicable				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		<u>Total % Cover of:</u>	<u>Multiply by:</u>			
Sapling/Shrub Stratum (Plot size: 15' r)				OBL species	50	x 1 =		
1. Not applicable				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' r)				Hydrophytic Vegetation Indicators:				
1. Eleocharis palustris	50	yes	OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation			
2. Eleocharis acicularis	5	no	OBL	<input checked="" type="checkbox"/>	2. Dominance Test is >50%			
3. Alisma triviale	5	no	OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹			
4. Rumex mexicanus	2	no	FACW	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
5. Agropyron smithii	5	no	FACU	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)			
6. Veronica americana	5	no	OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
7. Carex atherodes	2	no	OBL					
8.								
9.								
	74	= Total Cover						
Woody Vine Stratum (Plot size: 30' r)				Hydrophytic Vegetation Present?				
1. Not applicable							<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
		= Total Cover						
% Bare Ground in Herb Stratum:								
Remarks:								

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0–5	10 YR 2/1	90	10 YR 3/4	10	C	PL	silty clay	
5–10	10 YR 4/1	75	2.4 YR 2.5/3	25	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 :		
<input type="checkbox"/>	Histosol (A1)			<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)			<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)			<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input type="checkbox"/>	Hydrogen Sulfide (A4)			<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)			<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)			<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)
<input checked="" type="checkbox"/>	Depleted Below Dark Surface (A11)			<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Thick Dark Surface (A12)			<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)			<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)			<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)			
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:	—			Hydric Soil Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Depth (inches):	—							
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:									
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)				
<input checked="" type="checkbox"/>	Surface Water (A1)			<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)			<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/>	Saturation (A3)			<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input type="checkbox"/>	Drainage Patterns (B10)	
<input type="checkbox"/>	Water Marks (B1)			<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)			<input checked="" type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input checked="" type="checkbox"/>	Drift Deposits (B3)			<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)			<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)			<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)		
<input type="checkbox"/>	Water-Stained Leaves (B9)								
Field Observations:									
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches):	trace		Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Water Table Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Depth (inches):						
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/24/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT8
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.): prairie pothole		Local relief (concave, convex, none)	Slope (%): 0
Subregion (LRR): Northern Great Plains	Lat: 46°112'15.54"N	Long: 99°22'05.88"W	Datum: NAD83
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks: prairie pothole			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. Not applicable				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' r)				OBL species	x 1 =
1. Not applicable				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' r)				Hydrophytic Vegetation Indicators:	
1. Carex atherodes	40	yes	OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Polygonum amphibium	20	yes	OBL	<input checked="" type="checkbox"/>	2. Dominance Test is >50%
3. Agropyron smithii	10	no	FACU	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Cirsium arvense	10	no	FACU	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5.				<input type="checkbox"/>	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' r)				Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1. Not applicable					
	—	= Total Cover			
% Bare Ground in Herb Stratum: 15					
Remarks: Sedge and smartweed dominate sample plot. Most of the pothole is dominated by narrow-leaved cattail.					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20	10 YR 2/1	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.)					Indicators for Problematic Hydric Soils ³ :			
<input type="checkbox"/>	Histosol (A1)			<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)			<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)			<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input checked="" type="checkbox"/>	Hydrogen Sulfide (A4)			<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)			<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)			<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)			<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Thick Dark Surface (A12)			<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)			<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)			<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)			
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:					Hydric Soil Present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Depth (inches):								
Remarks: Very dark, completely saturated, strong hydrogen sulfide odor (A4)								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)			<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)
<input checked="" type="checkbox"/>	High Water Table (A2)			<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/>	Saturation (A3)			<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input type="checkbox"/>	Drainage Patterns (B10)
<input type="checkbox"/>	Water Marks (B1)			<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)			<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)			<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Algal Mat or Crust (B4)			<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)			<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:					Water Hydrology Present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Surface Water Present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): surface					
Water Table Present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): surface					
Saturation Present? (includes capillary fringe)		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): surface					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photo available and it was reviewed								
Remarks: Closed depression, prairie pothole								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/24/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT9
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat: 46°12'23.8246"N	Long: 99°22'01.0663"W	Datum: NAD83
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. Not applicable				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		<u>Total % Cover of:</u>	<u>Multiply by:</u>
Sapling/Shrub Stratum (Plot size: 15' r)				OBL species	x 1 =
1. Not applicable				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' r)				Hydrophytic Vegetation Indicators:	
1. Phalaris arundinacea	80	yes	FACW+	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Cirsium arvense	3	no	FACU	<input checked="" type="checkbox"/>	2. Dominance Test is >50%
3. Anemone canadensis	2	no	FACW	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4.				<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5.				<input type="checkbox"/>	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' r)				Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1. Not applicable					
		= Total Cover			
% Bare Ground in Herb Stratum:					
Remarks: Dense stand of reed canarygrass at prairie pothole margin					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT9

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	0 horizon							
1-9	10 YR 2/1	100	—	—	—	—	Silty clay	
9-12	10 YR 5/2	85	2.5 YR 2.5/4	15	C	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.)						Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/>	Histosol (A1)			<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)			<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)			<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input checked="" type="checkbox"/>	Hydrogen Sulfide (A4)			<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)			<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)			<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)			<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input checked="" type="checkbox"/>	Thick Dark Surface (A12)			<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)			<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)			<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)			
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:	—			Hydric Soil Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Depth (inches):	—							
Remarks: Obvious H ₂ S odor								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)						Secondary Indicators (minimum of two required)		
<input type="checkbox"/>	Surface Water (A1)			<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)
<input type="checkbox"/>	High Water Table (A2)			<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/>	Saturation (A3)			<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input type="checkbox"/>	Drainage Patterns (B10)
<input checked="" type="checkbox"/>	Water Marks (B1)			<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)			<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)
<input checked="" type="checkbox"/>	Drift Deposits (B3)			<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Algal Mat or Crust (B4)			<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)			<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)						<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Depth (inches):	Water Hydrology Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Water Table Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches): 6					
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches): 0					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:								
Remarks: Surface water present 1' away at depth of 3"								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/24/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT10
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%): 0
Subregion (LRR): Northern Great Plains	Lat: 46°12'29.4160"N	Long: 99°21'57.0350"W	Datum: NAD83
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. Not applicable				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' r)				OBL species	x 1 =
1. Not applicable				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' r)				Hydrophytic Vegetation Indicators:	
1. Carex atherodes	60	yes	OBL	<input checked="" type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Typha latifolia	40	yes	OBL	<input checked="" type="checkbox"/>	2. Dominance Test is >50%
3. Carex lanuginosa	2	no	OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Eleocharis palustris	3	no	OBL	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5.				<input type="checkbox"/>	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' r)				Hydrophytic Vegetation Present?	
1. Not applicable				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
	—	= Total Cover			
% Bare Ground in Herb Stratum:					
Remarks:					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	10 YR 2/1	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.)						Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/>	Histosol (A1)			<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)			<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)			<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input checked="" type="checkbox"/>	Hydrogen Sulfide (A4)			<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)			<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)			<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)			<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Thick Dark Surface (A12)			<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)			<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)			<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)			
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):				Hydric Soil Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Type:	—							
Depth (inches):	—							
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:									
Primary Indicators (minimum of one required; check all that apply)						Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)			<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)			<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)			<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input type="checkbox"/>	Drainage Patterns (B10)	
<input type="checkbox"/>	Water Marks (B1)			<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)			<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)			<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)			<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)			<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)						<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)								
Field Observations:				Water Hydrology Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches): 2						
Water Table Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches):						
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/24/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT11
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.): pothole		Local relief (concave, convex, none) concave	Slope (%): 0
Subregion (LRR): Northern Great Plains	Lat: 46°11'12.1927"N	Long: 99°21'40.0357"W	Datum: NAD83
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks: Small pothole dominated by water smartweed. Feature is immediately abutting a two-track access road.			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. Not applicable				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' r)				OBL species	x 1 =
1. Not applicable				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' r)				Hydrophytic Vegetation Indicators:	
1. Polygonum amphibium	40	yes	OBL	<input checked="" type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Carex atherodes	5	—	OBL	<input checked="" type="checkbox"/>	2. Dominance Test is >50%
3. Spartina pectinata	10	yes	FACW	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Carex lanuginosa	3	—	OBL	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Teucrium canadensis	<1	—	FACW	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Bare ground	20	—		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7.					
8.					
9.					
	59	= Total Cover			
Woody Vine Stratum (Plot size: 30' r)				Hydrophytic Vegetation Present?	
1. Not applicable				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
	—	= Total Cover			
% Bare Ground in Herb Stratum:					
Remarks: Water smartweed is dominant. Sedges and prairie cordgrass on the perimeter.					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT11

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	organic debris		—		—	—		
1-12	10 YR 5/1	99	10 YR 4/6	1	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 :			
<input type="checkbox"/>	Histosol (A1)	<input type="checkbox"/>	Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Histic Epipedon (A2)	<input type="checkbox"/>	Sandy Redox (S5)	<input type="checkbox"/>	Dark Surface (S7) (LRR G)	<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Black Histic (A3)	<input type="checkbox"/>	Stripped Matrix (S6)	<input type="checkbox"/>	Loamy Mucky Mineral (F1)	<input type="checkbox"/>	Reduced Vertic (F18)
<input checked="" type="checkbox"/>	Hydrogen Sulfide (A4)	<input type="checkbox"/>	Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	Depleted Matrix (F3)	<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)	<input type="checkbox"/>	Redox Dark Surface (F6)	<input type="checkbox"/>	Depleted Dark Surface (F7)	<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/>	Redox Depressions (F8)	<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)	<input type="checkbox"/>	Other (Explain in Remarks)
<input checked="" type="checkbox"/>	Depleted Below Dark Surface (A11)	<input type="checkbox"/>	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.			
<input type="checkbox"/>	Thick Dark Surface (A12)	<input type="checkbox"/>					
<input type="checkbox"/>	Sandy Mucky Mineral (S1)	<input type="checkbox"/>					
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/>					
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)	<input type="checkbox"/>					

Restrictive Layer (if present):		Hydric Soil Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Type: —			
Depth (inches): —			

Remarks: H₂S odor; totally saturated.

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)	
<input checked="" type="checkbox"/>	Surface Water (A1)	<input type="checkbox"/>	Salt Crust (B11)
<input type="checkbox"/>	High Water Table (A2)	<input type="checkbox"/>	Aquatic Invertebrates (B13)
<input checked="" type="checkbox"/>	Saturation (A3)	<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/>	Dry-Season Water Table (C2)
<input type="checkbox"/>	Sediment Deposits (B2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)
<input checked="" type="checkbox"/>	Drift Deposits (B3)	<input type="checkbox"/>	Presence of Reduced Iron (C4)
<input checked="" type="checkbox"/>	Algal Mat or Crust (B4)	<input type="checkbox"/>	Thin Muck Surface (C7)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)		

Field Observations:			Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): 2		
Water Table Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):		
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):		

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

Remarks: Small prairie pothole

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/25/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT12
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.): valley between two hills		Local relief (concave, convex, none) concave	Slope (%):
Subregion (LRR): Northern Great Plains	Lat: 46°11'19.36"N	Long: 99°24'04.86"W	Datum: NAD83
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks: Very small stream. It has flow but I can only discern that through sound.			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. Not applicable				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		<u>Total % Cover of:</u>	<u>Multiply by:</u>
Sapling/Shrub Stratum (Plot size: 15' r)				OBL species	x 1 =
1. Not applicable				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' r)				Hydrophytic Vegetation Indicators:	
1. Carex lanuginosa	20	yes	OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Carex praeegracilis	5	no	FACW	<input checked="" type="checkbox"/>	2. Dominance Test is >50%
3. Eleocharis acicularis	10	no	OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Hordeum jubatum	20	yes	FACW	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Poa palustris	30	yes	FACW	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Juncus torreyi (may be J. interior)	5	no	FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7. Carex brevior	2	no	FACU		
8.					
9.					
	92+	= Total Cover			
Woody Vine Stratum (Plot size: 30' r)				Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1. Not applicable					
	—	= Total Cover			
% Bare Ground in Herb Stratum: 10					
Remarks: Very small stream with Poa palustris probably the dominant, although there are small percentages of many other wetland species.					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT12

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10 YR 2/1	100					Silty clay loam	
6-12	10 YR 2/1	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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input checked="" type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input checked="" type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:						Hydric Soil Present?		
Depth (inches):						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks: Very dark, H ₂ S odor								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input checked="" type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10)	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input checked="" type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):	1/2		Water Hydrology Present?		
Water Table Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):	7			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):	surface				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photo is available and was reviewed								
Remarks:								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/25/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT13
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat: 46°11'26.70"N	Long: 99°22'53.21"W	Datum: NAD83
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks: Very small prairie pothole			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. Not applicable				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' r)				OBL species	x 1 =
1. Not applicable				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' r)				Hydrophytic Vegetation Indicators:	
1. Beckmannia syzigachne	40	yes	OBL	<input checked="" type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Eleocharis acicularis	20	yes	OBL	<input checked="" type="checkbox"/>	2. Dominance Test is >50%
3. Eleocharis palustris	10	no	OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4.				<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5.				<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6.					¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7.					
8.					
9.					
	70	= Total Cover			
Woody Vine Stratum (Plot size: 30' r)				Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1. Not applicable					
	—	= Total Cover			
% Bare Ground in Herb Stratum: 30					
Remarks: Sloughgrass dominant, spike rushes also abundant. Some squirreltail Carex atherodes out on the edge.					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT13

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-	10 YR 2/1						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 :		
<input type="checkbox"/>	Histosol (A1)			<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)			<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)			<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input type="checkbox"/>	Hydrogen Sulfide (A4)			<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)			<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)			<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)			<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input checked="" type="checkbox"/>	Thick Dark Surface (A12)			<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)			<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)			<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)			
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:				Hydric Soil Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Depth (inches):								
Remarks: Very dark, heavy clay—oxidized root channel (1) is prominent. Mud crack in floor of this prairie pothole.								

HYDROLOGY

Wetland Hydrology Indicators:									
Primary Indicators (minimum of one required; check all that apply)						Secondary Indicators (minimum of two required)			
<input type="checkbox"/>	Surface Water (A1)			<input type="checkbox"/>	Salt Crust (B11)		<input checked="" type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)			<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)			<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input type="checkbox"/>	Drainage Patterns (B10)	
<input checked="" type="checkbox"/>	Water Marks (B1)			<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)			<input checked="" type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)			<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)			<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)			<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)						<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)								
Field Observations:									
Surface Water Present?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Depth (inches):		Water Hydrology Present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Water Table Present?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Depth (inches):						
Saturation Present? (includes capillary fringe)		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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: Ashley Wind Energy		City/County: McIntosh		Sampling Date: 6/25/2010	
Applicant/Owner: CPV		State: ND		Sampling Point: WT14	
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:			
Landform (hillslope, terrace, etc.): drainage		Local relief (concave, convex, none)		Slope (%):	
Subregion (LRR): Northern Great Plains	Lat: 46°10'59.06"N	Long: 99°23'16.38"W		Datum: NAD83	
Soil Map Unit Name:		NWI Classification:			
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)					
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>					
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.					
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
Remarks: Drainage—poorly defined channel					

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. Not applicable				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' r)				OBL species x 1 =	
1. Not applicable				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' r)				Hydrophytic Vegetation Indicators:	
1. Carex lanuginosa	50	yes	OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Poa palustris	15	no	FACW	<input checked="" type="checkbox"/>	2. Dominance Test is >50%
3. Carex brevior	15	no	FACU	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4.				<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5.				<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6.				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7.					
8.					
9.					
	80	= Total Cover			
Woody Vine Stratum (Plot size: 30' r)				Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1. Not applicable					
	—	= Total Cover			
% Bare Ground in Herb Stratum: 20					
Remarks:					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT14

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10 YR 2/1		2.5 YR 2.5/3	2	C	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.)						Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input checked="" type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:			Hydric Soil Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Depth (inches):								
Remarks: Saturated, very dark, redox colors								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)						Secondary Indicators (minimum of two required)		
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input type="checkbox"/>	Drainage Patterns (B10)	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):			Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Water Table Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):	8				
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:								
Remarks: drainageway								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/25/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT15
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.): prairie pothole		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat: 46°11'28.3492"N	Long: 99°21'27.9980"W	Datum: NAD83
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks: Prairie pothole—existing road has cut through it			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. Populus deltoides	3	yes	FAC	Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-):	4 (A)
2.				Total Number of Dominant Species Across All Strata:	4 (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)
4.				Prevalence Index worksheet:	
	3	= Total Cover		<u>Total % Cover of:</u>	<u>Multiply by:</u>
Sapling/Shrub Stratum (Plot size: 15' r)				OBL species	x 1 =
1. Salix amygdaloides	10	no	FACW	FACW species	x 2 =
2. Salix exigua	25	yes	FACW+	FAC species	x 3 =
3.				FACU species	x 4 =
4.				UPL species	x 5 =
5.				Column Totals: (A)	(B)
	35	= Total Cover		Prevalence Index = B/A =	
Herb Stratum (Plot size: 5' r)				Hydrophytic Vegetation Indicators:	
1. Typha angustifolia	20	yes	OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Solidago canadensis	10	no	FACU	<input checked="" type="checkbox"/>	2. Dominance Test is >50%
3. Carex atherodes	30	yes	OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Cirsium arvense	<1	no	FACU	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Polygonum amphibium	5	no	OBL	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Lemna minor	2	no	OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7. Urtica dioica	<1	no	FACW		
8.					
9.					
	69	= Total Cover			
Woody Vine Stratum (Plot size: 30' r)				Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1. Not applicable					
		= Total Cover			
% Bare Ground in Herb Stratum: 30 (open water and shoreline)					
Remarks: Pothole that has been artificially altered due to placement of road with berm					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT15

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10 YR 2/1	100	—	—	—	—	fibric	
5-12	10 YR 6/2	93	10 YR 4/6	2	C	M	sandy clay loam	
			4/5.1	5	D	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 :		
<input type="checkbox"/>	Histosol (A1)			<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input checked="" type="checkbox"/>	Histic Epipedon (A2)			<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)			<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input checked="" type="checkbox"/>	Hydrogen Sulfide (A4)			<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)			<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)			<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)			<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Thick Dark Surface (A12)			<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)			<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)			<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)			
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:	—			Hydric Soil Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Depth (inches):	—							
Remarks: Very dark histic epipedon								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)						Secondary Indicators (minimum of two required)		
<input checked="" type="checkbox"/>	Surface Water (A1)			<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)
<input type="checkbox"/>	High Water Table (A2)			<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/>	Saturation (A3)			<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input type="checkbox"/>	Drainage Patterns (B10)
<input type="checkbox"/>	Water Marks (B1)			<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)			<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)
<input checked="" type="checkbox"/>	Drift Deposits (B3)			<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input checked="" type="checkbox"/>	Algal Mat or Crust (B4)			<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)			<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)						<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches):	trace		Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Water Table Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches):	1				
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches):					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photo is available and was reviewed.								
Remarks:								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/26/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT16
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.): small pothole		Local relief (concave, convex, none)	Slope (%): 0
Subregion (LRR): Northern Great Plains	Lat: 46°10'07.43"N	Long: 99°22'04.02"W	Datum: NAD83
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks: Very small prairie pothole			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. Not applicable				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' r)				OBL species	x 1 =
1. Not applicable				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' r)				Hydrophytic Vegetation Indicators:	
1. Phalaris arundinacea	50	yes	FACW+	<input checked="" type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Agrostis gigantea (41" tall)	40	yes	FACW	<input checked="" type="checkbox"/>	2. Dominance Test is >50%
3. Carex atherodes	10	no	OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4.				<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5.				<input type="checkbox"/>	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' r)				Hydrophytic Vegetation Present?	
1. Not applicable				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
	—	= Total Cover			
% Bare Ground in Herb Stratum:					
Remarks: Dense stand of reed canarygrass with reedtop in a pure stand on one end of the pothole.					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT16

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0–2	10 YR 3/4							organic material
2–6	10 YR 3/1							
6–13	10 YR 2/1		5 YR 3/4	10	C	M		mottling
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 :		
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input checked="" type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:			Hydric Soil Present?			<input type="checkbox"/> Yes <input type="checkbox"/> No		
Depth (inches):								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10)	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input checked="" type="checkbox"/>	FAC-Neutral Test (D5)	
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth (inches):			Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Water Table Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth (inches):					
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photo is available and was reviewed								
Remarks: Clear landscape, closed depression								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/26/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT17
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.): basin		Local relief (concave, convex, none)	Slope (%): 0
Subregion (LRR): Northern Great Plains	Lat: 46°09'26.6091"N	Long: 99°21'33.3482"W	Datum: NAD83
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input checked="" type="checkbox"/> , Soil <input checked="" type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks: significant damage by cattle (grazing/post hole)			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. Not applicable				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' r)				OBL species	x 1 =
1. Not applicable				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' r)				Hydrophytic Vegetation Indicators:	
1. Alopecurus aequalis	20	yes	OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Beckmannia syzigachne	5	no	OBL	<input type="checkbox"/>	2. Dominance Test is >50%
3. Eleocharis acicularis	15	yes	OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Spurry ?	20	yes	?	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Carex vulpinoidea	2	no	OBL	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Rumex mexicanus	2	no	FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7. Hordeum jubatum	2	no	FACW		
8. Bare ground	35				
9.					
	66	= Total Cover			
Woody Vine Stratum (Plot size: 30' r)				Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1. Not applicable					
	—	= Total Cover			
% Bare Ground in Herb Stratum:					
Remarks:					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT17

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	25Y 2.5/1	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.)					Indicators for Problematic Hydric Soils ³ :			
<input type="checkbox"/>	Histosol (A1)			<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)			<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)			<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input type="checkbox"/>	Hydrogen Sulfide (A4)			<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)			<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)			<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)			<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input checked="" type="checkbox"/>	Thick Dark Surface (A12)			<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)			<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)			<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)			
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):				Hydric Soil Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Type:	—							
Depth (inches):	—							
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)			<input type="checkbox"/>	Salt Crust (B11)		<input checked="" type="checkbox"/>	Surface Soil Cracks (B6)
<input type="checkbox"/>	High Water Table (A2)			<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/>	Saturation (A3)			<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input type="checkbox"/>	Drainage Patterns (B10)
<input type="checkbox"/>	Water Marks (B1)			<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)			<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)			<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Algal Mat or Crust (B4)			<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)			<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:				Water Hydrology Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):						
Water Table Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Depth (inches):						
Saturation Present? (includes capillary fringe)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Depth (inches):						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:								
Remarks: amphibians (frogs)								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/26/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT18
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.): prairie pothole		Local relief (concave, convex, none) none	Slope (%): 0
Subregion (LRR): Northern Great Plains	Lat: 46°09'33.58"N	Long: 99°21'13.07"W	Datum: NAD83
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks: Extension of prairie pothole lake to the east			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. Not applicable				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' r)				OBL species	x 1 =
1. Not applicable				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' r)				Hydrophytic Vegetation Indicators:	
1. Eleocharis palustris	50	yes	OBL	<input checked="" type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Ranunculus sp. ?	20	yes ?	FACW ?	<input checked="" type="checkbox"/>	2. Dominance Test is >50%
3. Hordeum jubatum	3	no	FACW	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Carex lanuginosa	10	no	OBL	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Beckmannia syzigachne	2	no	OBL	<input type="checkbox"/>	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' r)				Hydrophytic Vegetation Present?	
1. Not applicable				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
	—	= Total Cover			
% Bare Ground in Herb Stratum: 15					
Remarks: At the sample plot, spikerush dominates with the buttercup. Further in towards the middle, it is narrow-leaf cattails; lots of squirreltail around the edges.					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT18

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
	10 YR 2/1							
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input checked="" type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input checked="" type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:						Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Depth (inches):								
Remarks: H ₂ S odor, very dark, completely saturated								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input type="checkbox"/>	Drainage Patterns (B10)	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:					Water Hydrology Present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Surface Water Present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): 1					
Water Table Present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): 3					
Saturation Present? (includes capillary fringe)		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): surface					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photo available and it was reviewed								
Remarks:								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/26/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT19
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.): prairie pothole		Local relief (concave, convex, none) none	Slope (%): 0
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum: NAD83
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. Not applicable				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		<u>Total % Cover of:</u>	<u>Multiply by:</u>
Sapling/Shrub Stratum (Plot size: 15' r)				OBL species	x 1 =
1. Not applicable				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' r)				Hydrophytic Vegetation Indicators:	
1. Lemna minor	75	yes	OBL	<input checked="" type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Spartina pectinata	10	no	FACW	<input checked="" type="checkbox"/>	2. Dominance Test is >50%
3. Juncus balticus	10	no	OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Utricularia macroorhiza	<1	no	OBL	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5.				<input type="checkbox"/>	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' r)				Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1. Not applicable					
	—	= Total Cover			
% Bare Ground in Herb Stratum: 5 (open water)					
Remarks: floating lesser duckweed					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT19

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 2/1	100					clay loam	
4-14	10YR 7/2	80	10YR 2/1	20	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.)						Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input checked="" type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input checked="" type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:						Hydric Soil Present?		
Depth (inches):						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks: Strong H ₂ S odor, very dark surface, 1 ft below								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)						Secondary Indicators (minimum of two required)		
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input type="checkbox"/>	Drainage Patterns (B10)	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input checked="" type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):	3		Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Water Table Present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):					
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):	surface				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerials available and reviewed								
Remarks: in prairie pothole								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/27/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT20
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.): prairie pothole		Local relief (concave, convex, none) concave	Slope (%): 0
Subregion (LRR): Northern Great Plains	Lat: 46°10'23.0708"N	Long: 99°21'18.0866"W	Datum: NAD83
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks: Prairie pothole with surrounding higher topo without inlet or outlet			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. Not applicable				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' r)				OBL species	x 1 =
1. Not applicable				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' r)				Hydrophytic Vegetation Indicators:	
1. <i>Spartina pectinata</i>	20	yes	FACW	<input checked="" type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. <i>Rumex mexicanus</i>	5	yes	FACW	<input checked="" type="checkbox"/>	2. Dominance Test is >50%
3. <i>Carex atherodes</i>	10	yes	OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4.				<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5.				<input type="checkbox"/>	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' r)				Hydrophytic Vegetation Present?	
1. Not applicable				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
	—	= Total Cover			
% Bare Ground in Herb Stratum: 60					
Remarks:					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT20

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	0 Horizon							
2-6	10 YR 2/1	100					silty clay loam	
6-13	10 YR 3/1	96	10 YR 2/1	2	C	M	sandy clay loam	
			2.5 YR 3/4	2	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 :		
<input type="checkbox"/>	Histosol (A1)			<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)			<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)			<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input type="checkbox"/>	Hydrogen Sulfide (A4)			<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)			<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)			<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)
<input checked="" type="checkbox"/>	Depleted Below Dark Surface (A11)			<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Thick Dark Surface (A12)			<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)			<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)			<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)			
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:	—			Hydric Soil Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Depth (inches):	M							
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:									
Primary Indicators (minimum of one required; check all that apply)						Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)			<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)			<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/>	Saturation (A3)			<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input type="checkbox"/>	Drainage Patterns (B10)	
<input type="checkbox"/>	Water Marks (B1)			<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)			<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input checked="" type="checkbox"/>	Drift Deposits (B3)			<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input checked="" type="checkbox"/>	Algal Mat or Crust (B4)			<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)			<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)						<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)								
Field Observations:									
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches):	trace		Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Water Table Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Depth (inches):						
Saturation Present? (includes capillary fringe)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/27/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT21
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%): 0
Subregion (LRR): Northern Great Plains	Lat: 46°10'28.3312"N	Long: 99°21'06.3516"W	Datum: NAD83
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. Not applicable				Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-):	2 (A)
2.				Total Number of Dominant Species Across All Strata:	3 (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC:	66 (A/B)
4.				Prevalence Index worksheet:	
	—	= Total Cover		Total % Cover of:	Multiply by:
Sapling/Shrub Stratum (Plot size: 15' r)				OBL species	x 1 =
1. Not applicable				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' r)				Hydrophytic Vegetation Indicators:	
1. <i>Spartina pectinata</i>	40	yes	FACW	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. <i>Poa pratensis</i>	20	yes	FACU	<input checked="" type="checkbox"/>	2. Dominance Test is >50%
3. <i>Cirsium arvense</i>	2	—	FACU	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. <i>Carex lanuginosa</i>	20	yes	OBL	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. <i>Hordeum jubatum</i>	5	—	FACW	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. <i>Agrostis sp. ?</i>	10	—		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7. <i>Teucrium canadense</i>	2	—	FACW		
8.					
9.					
	99	= Total Cover			
Woody Vine Stratum (Plot size: 30' r)				Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1. Not applicable					
	—	= Total Cover			
% Bare Ground in Herb Stratum:					
Remarks:					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT21

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	0 Horizon							
2-7	10 YR 2/1	100					silty clay loam	
7-15	10 YR 4/1	80	2.5 YR 2.5/3	20	C	M	SC	

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 :		
<input type="checkbox"/>	Histosol (A1)	<input type="checkbox"/>	Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)	<input type="checkbox"/>	Sandy Redox (S5)	<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)	<input type="checkbox"/>	Stripped Matrix (S6)	<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)	<input type="checkbox"/>	Loamy Mucky Mineral (F1)	<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)	<input type="checkbox"/>	Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/>	Depleted Matrix (F3)	<input type="checkbox"/>	Red Parent Material (TF2)	
<input checked="" type="checkbox"/>	Depleted Below Dark Surface (A11)	<input type="checkbox"/>	Redox Dark Surface (F6)	<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)	<input type="checkbox"/>	Depleted Dark Surface (F7)	<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)	<input type="checkbox"/>	Redox Depressions (F8)	<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)			
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)					

Restrictive Layer (if present):		Hydric Soil Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Type: —			
Depth (inches): —			
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (minimum of two required)		
<input type="checkbox"/>	Surface Water (A1)	<input type="checkbox"/>	Salt Crust (B11)	<input type="checkbox"/>	Surface Soil Cracks (B6)
<input type="checkbox"/>	High Water Table (A2)	<input type="checkbox"/>	Aquatic Invertebrates (B13)	<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/>	Saturation (A3)	<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)	<input type="checkbox"/>	Drainage Patterns (B10)
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/>	Dry-Season Water Table (C2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)	<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)	<input type="checkbox"/>	Presence of Reduced Iron (C4)	<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Algal Mat or Crust (B4)	<input type="checkbox"/>	Thin Muck Surface (C7)	<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/>	Other (Explain in Remarks)	<input type="checkbox"/>	FAC-Neutral Test (D5)
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)			<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)				

Field Observations:			Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): trace		
Water Table Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Depth (inches):		
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): surface		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 Remarks: Standing H₂O 2' from hole

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/27/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT22
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none) concave	Slope (%): 0
Subregion (LRR): Northern Great Plains	Lat: 46°10'26.2270"N	Long: 99°21'01.4766"W	Datum: NAD83
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks: Prairie pothole with surrounding upland rolling hills			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. Not applicable				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' r)				OBL species	x 1 =
1. Not applicable				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' r)				Hydrophytic Vegetation Indicators:	
1. <i>Spartina pectinata</i>	50	yes	FACW	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. <i>Carex atherodes</i>	10	—	OBL	<input checked="" type="checkbox"/>	2. Dominance Test is >50%
3. <i>Agrostis</i> sp.	10	—		<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. <i>Poa pratensis</i>	5	—	FACU	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. <i>Eleocharis palustris</i>	1	—	OBL	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. <i>Carex sartwellii</i>	1	—	FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7.					
8.					
9.					
	77	= Total Cover			
Woody Vine Stratum (Plot size: 30' r)				Hydrophytic Vegetation Present?	
1. Not applicable				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
	—	= Total Cover			
% Bare Ground in Herb Stratum: 20					
Remarks:					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT22

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	0 Horizon						—	
1-4.5	10 YR 2/1	100					SCL	
4.5-10.5	10 YR 2/1	100					SCL	oxidized root channels
10.5-13	10 YR 4/1	93	2.5 YR/4/8	7	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 :		
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input checked="" type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input checked="" type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:	—					Hydric Soil Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Depth (inches):	—							
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)						Secondary Indicators (minimum of two required)		
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input type="checkbox"/>	Drainage Patterns (B10)	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches): 1		Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Water Table Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches): surface					
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches): surface					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:								
Remarks: Prairie pothole mapped on east side where H ₂ O likely reaches in wettest years								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/27/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT23
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.): prairie pothole		Local relief (concave, convex, none) concave	Slope (%): 0
Subregion (LRR): Northern Great Plains	Lat: 46°10'35.3733"N	Long: 99°20'46.8114"W	Datum: NAD83
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. Not applicable				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' r)				OBL species	x 1 =
1. Not applicable				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' r)				Hydrophytic Vegetation Indicators:	
1. Lemna minor	60	yes	OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Spartina pectinata	10	no	FACW	<input checked="" type="checkbox"/>	2. Dominance Test is >50%
3. Polygonum amphibium	15	no	OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Poa pratensis	15	no	FACU	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5.				<input type="checkbox"/>	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' r)				Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1. Not applicable					
	—	= Total Cover			
% Bare Ground in Herb Stratum:					
Remarks:					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT23

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10 YR 2/1	100						organic layer
2-9	10 YR 2/1	100					SCL	
9-15	10 YR 6/2	100					SCL	oxidized root channels

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 :		
<input type="checkbox"/>	Histosol (A1)	<input type="checkbox"/>	Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)	<input type="checkbox"/>	Sandy Redox (S5)	<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)	<input type="checkbox"/>	Stripped Matrix (S6)	<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input checked="" type="checkbox"/>	Hydrogen Sulfide (A4)	<input type="checkbox"/>	Loamy Mucky Mineral (F1)	<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)	<input type="checkbox"/>	Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/>	Depleted Matrix (F3)	<input type="checkbox"/>	Red Parent Material (TF2)	
<input checked="" type="checkbox"/>	Depleted Below Dark Surface (A11)	<input type="checkbox"/>	Redox Dark Surface (F6)	<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)	<input type="checkbox"/>	Depleted Dark Surface (F7)	<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)	<input type="checkbox"/>	Redox Depressions (F8)	<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)			
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)					

Restrictive Layer (if present):		Hydric Soil Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Type: —			
Depth (inches): —			
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (minimum of two required)		
<input checked="" type="checkbox"/>	Surface Water (A1)	<input type="checkbox"/>	Salt Crust (B11)	<input type="checkbox"/>	Surface Soil Cracks (B6)
<input type="checkbox"/>	High Water Table (A2)	<input checked="" type="checkbox"/>	Aquatic Invertebrates (B13)	<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/>	Saturation (A3)	<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)	<input type="checkbox"/>	Drainage Patterns (B10)
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/>	Dry-Season Water Table (C2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)	<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)	<input type="checkbox"/>	Presence of Reduced Iron (C4)	<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input checked="" type="checkbox"/>	Algal Mat or Crust (B4)	<input type="checkbox"/>	Thin Muck Surface (C7)	<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/>	Other (Explain in Remarks)	<input type="checkbox"/>	FAC-Neutral Test (D5)
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)			<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)				

Field Observations:				Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): 1			
Water Table Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): +1			
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/27/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT24
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.): swale		Local relief (concave, convex, none)	Slope (%): 1
Subregion (LRR): Northern Great Plains	Lat: 46°10'46.5175"N	Long: 99°20'28.7141"W	Datum: NAD83
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. Not applicable				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' r)				OBL species	x 1 =
1. Not applicable				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' r)				Hydrophytic Vegetation Indicators:	
1. Bechmannia syzigachne	30	yes	OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Agropyron smithii	30	yes	FACU	<input checked="" type="checkbox"/>	2. Dominance Test is >50%
3. Alisma plantago-aquatica	5	no	OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Hordium jubatum	10	no	FACW	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Rumex mexicanus	1	no	FACW	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Scirpus va	5	no	OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7. Mentha arvensis	2	no	FACW		
8. Eleocharis palustris	10	no	OBL		
9.					
		= Total Cover			
Woody Vine Stratum (Plot size: 30' r)				Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1. Not applicable					
	—	= Total Cover			
% Bare Ground in Herb Stratum: 7					
Remarks:					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT24

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	10 YR 2/1	—	—	—	—	—	SC	
7-12	10 YR 5/1	95	10 YR 5/8	5	C	M	C	
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 :		
<input type="checkbox"/>	Histosol (A1)			<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)			<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)			<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input checked="" type="checkbox"/>	Hydrogen Sulfide (A4)			<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)			<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)			<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)
<input checked="" type="checkbox"/>	Depleted Below Dark Surface (A11)			<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Thick Dark Surface (A12)			<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)			<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)			<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)			
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):				Hydric Soil Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Type:	—							
Depth (inches):	—							
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:									
Primary Indicators (minimum of one required; check all that apply)						Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)			<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)			<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)			<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input type="checkbox"/>	Drainage Patterns (B10)	
<input type="checkbox"/>	Water Marks (B1)			<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)			<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)			<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input checked="" type="checkbox"/>	Algal Mat or Crust (B4)			<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)			<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)		
<input type="checkbox"/>	Water-Stained Leaves (B9)								
Field Observations:				Water Hydrology Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches): 1						
Water Table Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches): +1						
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches): surface						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									
Remarks: linear swale between ag/prairie ridges									

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/27/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT25
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.): prairie pothole		Local relief (concave, convex, none) concave	Slope (%): 0
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum: NAD83
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. Not applicable				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		<u>Total % Cover of:</u>	<u>Multiply by:</u>
Sapling/Shrub Stratum (Plot size: 15' r)				OBL species 41	x 1 = 41
1. Not applicable				FACW species 20	x 2 = 40
2.				FAC species	x 3 =
3.				FACU species 35	x 4 = 140
4.				UPL species	x 5 =
5.				Column Totals: 96 (A)	221 (B)
	—	= Total Cover		Prevalence Index = B/A =	2.3
Herb Stratum (Plot size: 5' r)				Hydrophytic Vegetation Indicators:	
1. Carex vulpinoidea	40	yes	OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Melilotus officinalis	30	yes	FACU-	<input type="checkbox"/>	2. Dominance Test is >50%
3. Hordeum jubatum	15	no	FACW	<input checked="" type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Rumex mexicanus	5	no	FACW	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Cirsium arvense	5	no	FACU	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Lemna minor	1	no	OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7.					
8.					
9.					
	96	= Total Cover			
Woody Vine Stratum (Plot size: 30' r)				Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1. Not applicable					
	—	= Total Cover			
% Bare Ground in Herb Stratum: 4					
Remarks:					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT25

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10 YR 2/1	100					SCL	
5-16	10 YR 7/2	100					SCL	
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 :		
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input checked="" type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input checked="" type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:	—					Hydric Soil Present?		
Depth (inches):	—					<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)						Secondary Indicators (minimum of two required)		
<input type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input type="checkbox"/>	Drainage Patterns (B10)	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth (inches):		Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Water Table Present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches): 13					
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches): surface					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photographs								
Remarks:								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/28/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT26
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. Typha augustifolia			OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Carex lanuginosa			OBL	<input type="checkbox"/>	2. Dominance Test is >50%
3. Carex atherodes			OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4.				<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5.				<input type="checkbox"/>	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' r)				Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1.					
			= Total Cover		
% Bare Ground in Herb Stratum:					
Remarks: Swale, Y-shaped, old irrigation ditch/excavated No inlet/outlet, standing pending H ₂ O with algae Potential H ₂ O connector between two prairie potholes Non-jurisdictional					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT26

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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:		
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):			Hydric Soil Present?			<input type="checkbox"/> Yes <input type="checkbox"/> No		
Type:								
Depth (inches):								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)						Secondary Indicators (minimum of two required)		
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input type="checkbox"/>	Drainage Patterns (B10)	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input checked="" type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:			Water Hydrology Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Surface Water Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):						
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):						
Saturation Present? (includes capillary fringe)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photographs								
Remarks:								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/28/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT27
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. Eleocharis palustris			OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Phragmites australis			OBL	<input type="checkbox"/>	2. Dominance Test is >50%
3. Algal bloom			OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Scirpus sp.			OBL	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5.				<input type="checkbox"/>	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' r)				Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1.					
			= Total Cover		
% Bare Ground in Herb Stratum:					
Remarks: Open H ₂ O; steep banks; pictures at 1600 Actively grazed upland surrounding with cattle					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT27

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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 :	
<input type="checkbox"/>	Histosol (A1)	<input type="checkbox"/>	Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)	<input type="checkbox"/>	Sandy Redox (S5)	<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)	<input type="checkbox"/>	Stripped Matrix (S6)	<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input type="checkbox"/>	Hydrogen Sulfide (A4)	<input type="checkbox"/>	Loamy Mucky Mineral (F1)	<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)	<input type="checkbox"/>	Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/>	Depleted Matrix (F3)	<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)	<input type="checkbox"/>	Redox Dark Surface (F6)	<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Thick Dark Surface (A12)	<input type="checkbox"/>	Depleted Dark Surface (F7)	<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)	<input type="checkbox"/>	Redox Depressions (F8)	<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)		
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)				

Restrictive Layer (if present):		Hydric Soil Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Type:			
Depth (inches):			
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (minimum of two required)		
<input type="checkbox"/>	Surface Water (A1)	<input type="checkbox"/>	Salt Crust (B11)	<input type="checkbox"/>	Surface Soil Cracks (B6)
<input type="checkbox"/>	High Water Table (A2)	<input type="checkbox"/>	Aquatic Invertebrates (B13)	<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/>	Saturation (A3)	<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)	<input type="checkbox"/>	Drainage Patterns (B10)
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/>	Dry-Season Water Table (C2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)	<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)	<input type="checkbox"/>	Presence of Reduced Iron (C4)	<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Algal Mat or Crust (B4)	<input type="checkbox"/>	Thin Muck Surface (C7)	<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/>	Other (Explain in Remarks)	<input type="checkbox"/>	FAC-Neutral Test (D5)
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)			<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)				

Field Observations:				Water Hydrology Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Surface Water Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Saturation Present? (includes capillary fringe)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks: Non-jurisdictional.

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/28/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT28
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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	<u>Total % Cover of:</u>	<u>Multiply by:</u>
Sapling/Shrub Stratum (Plot size: 15' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. Carex vulpinoidea			OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Phalaris arundinacea			FACW	<input type="checkbox"/>	2. Dominance Test is >50%
3. Typha augustifolia			OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Lemna minor			OBL	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Utricularia macrorhiza			OBL	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Scirpus acutus			OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7. Carex lanuginosa			OBL		
8.			OBL		
9.			OBL		
			= Total Cover		
Woody Vine Stratum (Plot size: 30' r)				Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1.					
			= Total Cover		
% Bare Ground in Herb Stratum:					
Remarks: Enclosed pothole; upland is grazed prairie with cattle. Picture at 1620					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT28

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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 :	
<input type="checkbox"/>	Histosol (A1)	<input type="checkbox"/>	Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)	<input type="checkbox"/>	Sandy Redox (S5)	<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)	<input type="checkbox"/>	Stripped Matrix (S6)	<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input type="checkbox"/>	Hydrogen Sulfide (A4)	<input type="checkbox"/>	Loamy Mucky Mineral (F1)	<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)	<input type="checkbox"/>	Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/>	Depleted Matrix (F3)	<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)	<input type="checkbox"/>	Redox Dark Surface (F6)	<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Thick Dark Surface (A12)	<input type="checkbox"/>	Depleted Dark Surface (F7)	<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)	<input type="checkbox"/>	Redox Depressions (F8)	<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)		
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)				

Restrictive Layer (if present):		Hydric Soil Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Type:			
Depth (inches):			
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (minimum of two required)		
<input type="checkbox"/>	Surface Water (A1)	<input type="checkbox"/>	Salt Crust (B11)	<input type="checkbox"/>	Surface Soil Cracks (B6)
<input type="checkbox"/>	High Water Table (A2)	<input type="checkbox"/>	Aquatic Invertebrates (B13)	<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/>	Saturation (A3)	<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)	<input type="checkbox"/>	Drainage Patterns (B10)
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/>	Dry-Season Water Table (C2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)	<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)	<input type="checkbox"/>	Presence of Reduced Iron (C4)	<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Algal Mat or Crust (B4)	<input type="checkbox"/>	Thin Muck Surface (C7)	<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/>	Other (Explain in Remarks)	<input type="checkbox"/>	FAC-Neutral Test (D5)
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)			<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)				

Field Observations:				Water Hydrology Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Surface Water Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Saturation Present? (includes capillary fringe)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs
 Remarks: Non-jurisdictional.

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/28/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT29
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. Calamagrostis inexpectata			FACW	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Carex vulpinoidea			OBL	<input type="checkbox"/>	2. Dominance Test is >50%
3. Algae				<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Lemna minor			OBL	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Poa palustris			FACW	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Alisma plantago-aquatica			OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7. Eleocharis palustris			OBL		
8. Juncus interior/duplii					
9.					
			= Total Cover		
Woody Vine Stratum (Plot size: 30' r)				Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1.					
			= Total Cover		
% Bare Ground in Herb Stratum:					
Remarks: Pix at 1630; upland is actively grazed by cattle					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT29

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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 :	
<input type="checkbox"/>	Histosol (A1)	<input type="checkbox"/>	Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)	<input type="checkbox"/>	Sandy Redox (S5)	<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)	<input type="checkbox"/>	Stripped Matrix (S6)	<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input type="checkbox"/>	Hydrogen Sulfide (A4)	<input type="checkbox"/>	Loamy Mucky Mineral (F1)	<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)	<input type="checkbox"/>	Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/>	Depleted Matrix (F3)	<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)	<input type="checkbox"/>	Redox Dark Surface (F6)	<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Thick Dark Surface (A12)	<input type="checkbox"/>	Depleted Dark Surface (F7)	<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)	<input type="checkbox"/>	Redox Depressions (F8)	<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)		
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)				

Restrictive Layer (if present):		Hydric Soil Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Type:			
Depth (inches):			
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (minimum of two required)		
<input type="checkbox"/>	Surface Water (A1)	<input type="checkbox"/>	Salt Crust (B11)	<input type="checkbox"/>	Surface Soil Cracks (B6)
<input type="checkbox"/>	High Water Table (A2)	<input type="checkbox"/>	Aquatic Invertebrates (B13)	<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/>	Saturation (A3)	<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)	<input type="checkbox"/>	Drainage Patterns (B10)
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/>	Dry-Season Water Table (C2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)	<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)	<input type="checkbox"/>	Presence of Reduced Iron (C4)	<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Algal Mat or Crust (B4)	<input type="checkbox"/>	Thin Muck Surface (C7)	<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/>	Other (Explain in Remarks)	<input type="checkbox"/>	FAC-Neutral Test (D5)
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)			<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)				
Field Observations:			Water Hydrology Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Surface Water Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Saturation Present? (includes capillary fringe)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs					
Remarks: Non-jurisdictional					

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/28/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT30
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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	<u>Total % Cover of:</u>	<u>Multiply by:</u>
Sapling/Shrub Stratum (Plot size: 15' r)				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' r)				Hydrophytic Vegetation Indicators:	
1.				<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2.				<input type="checkbox"/>	2. Dominance Test is >50%
3.				<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4.				<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5.				<input type="checkbox"/>	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' r)				Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No	
1.					
			= Total Cover		
% Bare Ground in Herb Stratum:					
Remarks: stock pond with cattle. Pix at 1650.					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT30

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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 :	
<input type="checkbox"/>	Histosol (A1)	<input type="checkbox"/>	Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)	<input type="checkbox"/>	Sandy Redox (S5)	<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)	<input type="checkbox"/>	Stripped Matrix (S6)	<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input type="checkbox"/>	Hydrogen Sulfide (A4)	<input type="checkbox"/>	Loamy Mucky Mineral (F1)	<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)	<input type="checkbox"/>	Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/>	Depleted Matrix (F3)	<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)	<input type="checkbox"/>	Redox Dark Surface (F6)	<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Thick Dark Surface (A12)	<input type="checkbox"/>	Depleted Dark Surface (F7)	<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)	<input type="checkbox"/>	Redox Depressions (F8)	<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)		
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)				

Restrictive Layer (if present):		Hydric Soil Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Type:			
Depth (inches):			
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (minimum of two required)		
<input type="checkbox"/>	Surface Water (A1)	<input type="checkbox"/>	Salt Crust (B11)	<input type="checkbox"/>	Surface Soil Cracks (B6)
<input type="checkbox"/>	High Water Table (A2)	<input type="checkbox"/>	Aquatic Invertebrates (B13)	<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/>	Saturation (A3)	<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)	<input type="checkbox"/>	Drainage Patterns (B10)
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/>	Dry-Season Water Table (C2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)	<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)	<input type="checkbox"/>	Presence of Reduced Iron (C4)	<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Algal Mat or Crust (B4)	<input type="checkbox"/>	Thin Muck Surface (C7)	<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/>	Other (Explain in Remarks)	<input type="checkbox"/>	FAC-Neutral Test (D5)
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)			<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)				
Field Observations:			Water Hydrology Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Surface Water Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Saturation Present? (includes capillary fringe)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs					
Remarks: Non-jurisdictional					

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/28/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT31
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. Eleocharis palustris			OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Carex atherodes			OBL	<input type="checkbox"/>	2. Dominance Test is >50%
3. Alopecurus aequalis			OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Hordeum jubatum			FACW	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Algal growth			—	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Rumex mexicanus			FACW		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' r)				Hydrophytic Vegetation Present?	
1.				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
			= Total Cover		
% Bare Ground in Herb Stratum:					
Remarks: Pothole not in/outlet; upland prairie grazed by cattle. Pix at 1705.					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT31

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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 :	
<input type="checkbox"/>	Histosol (A1)	<input type="checkbox"/>	Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)	<input type="checkbox"/>	Sandy Redox (S5)	<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)	<input type="checkbox"/>	Stripped Matrix (S6)	<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input type="checkbox"/>	Hydrogen Sulfide (A4)	<input type="checkbox"/>	Loamy Mucky Mineral (F1)	<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)	<input type="checkbox"/>	Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/>	Depleted Matrix (F3)	<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)	<input type="checkbox"/>	Redox Dark Surface (F6)	<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Thick Dark Surface (A12)	<input type="checkbox"/>	Depleted Dark Surface (F7)	<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)	<input type="checkbox"/>	Redox Depressions (F8)	<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)		
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)				

Restrictive Layer (if present):		Hydric Soil Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Type:			
Depth (inches):			
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (minimum of two required)		
<input type="checkbox"/>	Surface Water (A1)	<input type="checkbox"/>	Salt Crust (B11)	<input type="checkbox"/>	Surface Soil Cracks (B6)
<input type="checkbox"/>	High Water Table (A2)	<input type="checkbox"/>	Aquatic Invertebrates (B13)	<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/>	Saturation (A3)	<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)	<input type="checkbox"/>	Drainage Patterns (B10)
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/>	Dry-Season Water Table (C2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)	<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)	<input type="checkbox"/>	Presence of Reduced Iron (C4)	<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Algal Mat or Crust (B4)	<input type="checkbox"/>	Thin Muck Surface (C7)	<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/>	Other (Explain in Remarks)	<input type="checkbox"/>	FAC-Neutral Test (D5)
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)			<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)				

Field Observations:				Water Hydrology Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Surface Water Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Saturation Present? (includes capillary fringe)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			

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

Remarks: Non-jurisdictional

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/28/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT32
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. Eleocharis palustris			OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Hordeum jubatum			FACW	<input type="checkbox"/>	2. Dominance Test is >50%
3. Carex lanuginosa			OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Juncus interior				<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Algal mat				<input type="checkbox"/>	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' r)				Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1.					
			= Total Cover		
% Bare Ground in Herb Stratum:					
Remarks: Inlet swale to open water pond; prairie pothole to the north; fed by overland flow. Pix at 1715 and 1735					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT32

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:						Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Depth (inches):								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input type="checkbox"/>	Drainage Patterns (B10)	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): +3	Water Hydrology Present?			<input type="checkbox"/> Yes <input type="checkbox"/> No		
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):						
Saturation Present? (includes capillary fringe)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs								
Remarks: Non-jurisdictional								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/28/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT33
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks: prairie pothole			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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	<u>Total % Cover of:</u>	<u>Multiply by:</u>
Sapling/Shrub Stratum (Plot size: 15' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. Utricularia macrorhiza			OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Scirpus sp.			OBL	<input type="checkbox"/>	2. Dominance Test is >50%
3. Hordeum jubatuml			FACW	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Juncus sp.			—	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Eleocharis palustrus			OBL	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Spartina pectinata			FACW	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' r)				Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1.					
			= Total Cover		
% Bare Ground in Herb Stratum:					
Remarks: pix at 1755					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT33

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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 :		
<input type="checkbox"/>	Histosol (A1)	<input type="checkbox"/>	Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)	<input type="checkbox"/>	Sandy Redox (S5)	<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)	<input type="checkbox"/>	Stripped Matrix (S6)	<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)	<input type="checkbox"/>	Loamy Mucky Mineral (F1)	<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)	<input type="checkbox"/>	Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/>	Depleted Matrix (F3)	<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)	<input type="checkbox"/>	Redox Dark Surface (F6)	<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)	<input type="checkbox"/>	Depleted Dark Surface (F7)	<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)	<input type="checkbox"/>	Redox Depressions (F8)	<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)			
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)					

Restrictive Layer (if present):		Hydric Soil Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Type:			
Depth (inches):			
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (minimum of two required)		
<input checked="" type="checkbox"/>	Surface Water (A1)	<input type="checkbox"/>	Salt Crust (B11)	<input type="checkbox"/>	Surface Soil Cracks (B6)
<input type="checkbox"/>	High Water Table (A2)	<input type="checkbox"/>	Aquatic Invertebrates (B13)	<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/>	Saturation (A3)	<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)	<input type="checkbox"/>	Drainage Patterns (B10)
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/>	Dry-Season Water Table (C2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)	<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)	<input type="checkbox"/>	Presence of Reduced Iron (C4)	<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Algal Mat or Crust (B4)	<input type="checkbox"/>	Thin Muck Surface (C7)	<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/>	Other (Explain in Remarks)	<input type="checkbox"/>	FAC-Neutral Test (D5)
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/>		<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)				

Field Observations:				Water Hydrology Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Surface Water Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			

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

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh		Sampling Date: 6/28/2010	
Applicant/Owner: CPV		State: ND		Sampling Point: WT34	
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:			
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)		Slope (%):	
Subregion (LRR): Northern Great Plains		Lat:		Long:	
Soil Map Unit Name:		NW1 Classification:			
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)					
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>					
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.					
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No					
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No					
Remarks:					

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. <i>Spartina pectinata</i>			FACW	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. <i>Juncus balticus</i>			OBL	<input type="checkbox"/>	2. Dominance Test is >50%
3. <i>Eleocharis palustris</i>			OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. <i>Hordeum jubatum</i>			FACW	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Algal mat			—	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. <i>Agrostis gigantea</i>			NI	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' r)				Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1.					
			= Total Cover		
% Bare Ground in Herb Stratum:					
Remarks: Pothole without inlet/outlet; obvious grazing by cattle in wetland (degraded)					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT34

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):			Hydric Soil Present?			<input type="checkbox"/> Yes <input type="checkbox"/> No		
Type:								
Depth (inches):								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input type="checkbox"/>	Drainage Patterns (B10)	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:			Water Hydrology Present?			<input type="checkbox"/> Yes <input type="checkbox"/> No		
Surface Water Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):						
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):						
Saturation Present? (includes capillary fringe)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs								
Remarks: Non-jurisdictional								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/28/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT35
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks: pothole: no inlet/outlet. Pix at 1835			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. Eleocharis palustris			OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Juncus balticus			OBL	<input type="checkbox"/>	2. Dominance Test is >50%
3. Carex vulpinoidea			OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Carex lanuginosa			OBL	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Agropyron smithii			FACU	<input type="checkbox"/>	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' r)				Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1.					
			= Total Cover		
% Bare Ground in Herb Stratum:					
Remarks:					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT35

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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 :	
<input type="checkbox"/>	Histosol (A1)	<input type="checkbox"/>	Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)	<input type="checkbox"/>	Sandy Redox (S5)	<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)	<input type="checkbox"/>	Stripped Matrix (S6)	<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input type="checkbox"/>	Hydrogen Sulfide (A4)	<input type="checkbox"/>	Loamy Mucky Mineral (F1)	<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)	<input type="checkbox"/>	Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/>	Depleted Matrix (F3)	<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)	<input type="checkbox"/>	Redox Dark Surface (F6)	<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Thick Dark Surface (A12)	<input type="checkbox"/>	Depleted Dark Surface (F7)	<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)	<input type="checkbox"/>	Redox Depressions (F8)	<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)		
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)				

Restrictive Layer (if present):		Hydric Soil Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Type:			
Depth (inches):			
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (minimum of two required)		
<input type="checkbox"/>	Surface Water (A1)	<input type="checkbox"/>	Salt Crust (B11)	<input type="checkbox"/>	Surface Soil Cracks (B6)
<input type="checkbox"/>	High Water Table (A2)	<input type="checkbox"/>	Aquatic Invertebrates (B13)	<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/>	Saturation (A3)	<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)	<input type="checkbox"/>	Drainage Patterns (B10)
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/>	Dry-Season Water Table (C2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)	<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)	<input type="checkbox"/>	Presence of Reduced Iron (C4)	<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Algal Mat or Crust (B4)	<input type="checkbox"/>	Thin Muck Surface (C7)	<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/>	Other (Explain in Remarks)	<input type="checkbox"/>	FAC-Neutral Test (D5)
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)			<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)				
Field Observations:			Water Hydrology Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Surface Water Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Saturation Present? (includes capillary fringe)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs					
Remarks: Non-jurisdictional					

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh		Sampling Date: 6/28/2010
Applicant/Owner: CPV		State: ND		Sampling Point: WT36
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:		
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)		Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:		Datum:
Soil Map Unit Name:		NWI Classification:		
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)				
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>				
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.				
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No				
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No				
Remarks:				

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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	<u>Total % Cover of:</u>	<u>Multiply by:</u>	
Sapling/Shrub Stratum (Plot size: 15' r)				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' r)				Hydrophytic Vegetation Indicators:		
1. Carex lanuginosa			OBL <input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation		
2. Juncus balticus			OBL <input type="checkbox"/>	2. Dominance Test is >50%		
3. Carex vulpinoidea			OBL <input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹		
4. Hordeum jubatum			FACW <input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
5. Poa pratensis			FACU <input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)		
6. Lemna minor			OBL	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' r)				Hydrophytic Vegetation Present?		
1.						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
			= Total Cover			
% Bare Ground in Herb Stratum:						
Remarks: Open H ₂ O pothole; some steep banks; some fringe wetland inlets. No outlet. Cattle grazing adjacent to upland prairie						

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT36

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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 :	
<input type="checkbox"/>	Histosol (A1)	<input type="checkbox"/>	Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)	<input type="checkbox"/>	Sandy Redox (S5)	<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)	<input type="checkbox"/>	Stripped Matrix (S6)	<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input type="checkbox"/>	Hydrogen Sulfide (A4)	<input type="checkbox"/>	Loamy Mucky Mineral (F1)	<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)	<input type="checkbox"/>	Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/>	Depleted Matrix (F3)	<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)	<input type="checkbox"/>	Redox Dark Surface (F6)	<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Thick Dark Surface (A12)	<input type="checkbox"/>	Depleted Dark Surface (F7)	<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)	<input type="checkbox"/>	Redox Depressions (F8)	<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)		
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)				

Restrictive Layer (if present):		Hydric Soil Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Type:			
Depth (inches):			
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (minimum of two required)		
<input type="checkbox"/>	Surface Water (A1)	<input type="checkbox"/>	Salt Crust (B11)	<input type="checkbox"/>	Surface Soil Cracks (B6)
<input type="checkbox"/>	High Water Table (A2)	<input type="checkbox"/>	Aquatic Invertebrates (B13)	<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/>	Saturation (A3)	<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)	<input type="checkbox"/>	Drainage Patterns (B10)
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/>	Dry-Season Water Table (C2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)	<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)	<input type="checkbox"/>	Presence of Reduced Iron (C4)	<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Algal Mat or Crust (B4)	<input type="checkbox"/>	Thin Muck Surface (C7)	<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/>	Other (Explain in Remarks)	<input type="checkbox"/>	FAC-Neutral Test (D5)
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)			<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)				

Field Observations:				Water Hydrology Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Surface Water Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Saturation Present? (includes capillary fringe)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			

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

Remarks: Non-jurisdictional

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/28/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT37
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. Typha augustifolia			OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Glyceria grandis			OBL	<input type="checkbox"/>	2. Dominance Test is >50%
3. Carex lanuginosa			OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Carex vulpinoidea			OBL	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Algal mat			—	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Phalaris arundinacea			FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7. Echinochloa crus-galli			FACW		
8. Carex sartwellii					
9.					
			= Total Cover		
Woody Vine Stratum (Plot size: 30' r)				Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1.					
			= Total Cover		
% Bare Ground in Herb Stratum:					
Remarks: Isolated prairie pothole without inlet/outlet; adjacent to grazed prairie. Pix at 1930 hrs.					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT37

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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 :	
<input type="checkbox"/>	Histosol (A1)	<input type="checkbox"/>	Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)	<input type="checkbox"/>	Sandy Redox (S5)	<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)	<input type="checkbox"/>	Stripped Matrix (S6)	<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input type="checkbox"/>	Hydrogen Sulfide (A4)	<input type="checkbox"/>	Loamy Mucky Mineral (F1)	<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)	<input type="checkbox"/>	Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/>	Depleted Matrix (F3)	<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)	<input type="checkbox"/>	Redox Dark Surface (F6)	<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Thick Dark Surface (A12)	<input type="checkbox"/>	Depleted Dark Surface (F7)	<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)	<input type="checkbox"/>	Redox Depressions (F8)	<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)		
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)				

Restrictive Layer (if present):		Hydric Soil Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Type:			
Depth (inches):			
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (minimum of two required)		
<input type="checkbox"/>	Surface Water (A1)	<input type="checkbox"/>	Salt Crust (B11)	<input type="checkbox"/>	Surface Soil Cracks (B6)
<input type="checkbox"/>	High Water Table (A2)	<input type="checkbox"/>	Aquatic Invertebrates (B13)	<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/>	Saturation (A3)	<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)	<input type="checkbox"/>	Drainage Patterns (B10)
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/>	Dry-Season Water Table (C2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)	<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)	<input type="checkbox"/>	Presence of Reduced Iron (C4)	<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Algal Mat or Crust (B4)	<input type="checkbox"/>	Thin Muck Surface (C7)	<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/>	Other (Explain in Remarks)	<input type="checkbox"/>	FAC-Neutral Test (D5)
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)			<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)				

Field Observations:				Water Hydrology Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Surface Water Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Saturation Present? (includes capillary fringe)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			

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

Remarks: Non-jurisdictional

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/29/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT38
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none) concave	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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	<u>Total % Cover of:</u>	<u>Multiply by:</u>	
Sapling/Shrub Stratum (Plot size: 15' r)				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' r)				Hydrophytic Vegetation Indicators:		
1. Typha angustifolia		yes	OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation	
2. Carex atherodes			OBL	<input type="checkbox"/>	2. Dominance Test is >50%	
3. Scirpus acutus			OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹	
4. Juncus balticus			OBL	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
5. Phalaris arundinacea			FACW	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)	
6. Eleocharis palustris			OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
7. Hordeum jubatum			FACW			
8. Triglochin martimum ?			OBL			
9.						
		100	= Total Cover			
Woody Vine Stratum (Plot size: 30' r)				Hydrophytic Vegetation Present?		
1.						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
			= Total Cover			
% Bare Ground in Herb Stratum:						
Remarks: Wetland has open water in the middle with dense Typha stand ringing the shoreline. Outside the Typha zone are sedges, rushes, bullrushes, spikerushes, and grasses. Observed: yellow-headed blackbirds; red-winged blackbirds, garter snake						

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT38

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:						Hydric Soil Present?		
Depth (inches):						<input type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) Closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):			Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Water Table Present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):					
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs								
Remarks: Prairie pothole. No outlet. Non-jurisdictional. Large surface area of open water. Very large overall feature.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/29/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT39
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks: Small pothole surrounded on all sides by a mowed hayfield			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. Carex atherodes		yes	OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Polygonum amphibium		yes	OBL	<input type="checkbox"/>	2. Dominance Test is >50%
3. Agropyron smithii		yes	FACU	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Teucrium canadense		no	FACW	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5.				<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6.					¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7.					
8.					
9.					
	67	= Total Cover			
Woody Vine Stratum (Plot size: 30' r)				Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1.					
		= Total Cover			
% Bare Ground in Herb Stratum:					
Remarks:					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT39

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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 :		
<input type="checkbox"/>	Histosol (A1)	<input type="checkbox"/>	Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)	<input type="checkbox"/>	Sandy Redox (S5)	<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)	<input type="checkbox"/>	Stripped Matrix (S6)	<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)	<input type="checkbox"/>	Loamy Mucky Mineral (F1)	<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)	<input type="checkbox"/>	Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/>	Depleted Matrix (F3)	<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)	<input type="checkbox"/>	Redox Dark Surface (F6)	<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)	<input type="checkbox"/>	Depleted Dark Surface (F7)	<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)	<input type="checkbox"/>	Redox Depressions (F8)	<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)			
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)					

Restrictive Layer (if present):		Hydric Soil Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Type:			
Depth (inches):			
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (minimum of two required)		
<input checked="" type="checkbox"/>	Surface Water (A1)	<input type="checkbox"/>	Salt Crust (B11)	<input type="checkbox"/>	Surface Soil Cracks (B6)
<input type="checkbox"/>	High Water Table (A2)	<input type="checkbox"/>	Aquatic Invertebrates (B13)	<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/>	Saturation (A3)	<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/>	Drainage Patterns (B10) Closed depression
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/>	Dry-Season Water Table (C2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)	<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)	<input type="checkbox"/>	Presence of Reduced Iron (C4)	<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Algal Mat or Crust (B4)	<input type="checkbox"/>	Thin Muck Surface (C7)	<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/>	Other (Explain in Remarks)	<input type="checkbox"/>	FAC-Neutral Test (D5)
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/>		<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)				

Field Observations:				Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):	3		
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Saturation Present? (includes capillary fringe)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 Remarks: Small closed depression. No outlet. Non-jurisdictional.

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh		Sampling Date: 6/29/2010	
Applicant/Owner: CPV		State: ND		Sampling Point: WT40	
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:			
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)		Slope (%):	
Subregion (LRR): Northern Great Plains		Lat:		Long:	
Soil Map Unit Name:		NW1 Classification:			
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)					
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>					
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.					
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No					
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
Remarks: Shallow prairie pothole. Dense stands of bullrush and sprangletop. The outer ring is C. atherodes, C. stricta, and C. lanuginosa. The open water and some emergent Polygonum, but it is not dense.					

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. Scirpus pendulus		yes	OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Carex lanuginosa		yes	OBL	<input type="checkbox"/>	2. Dominance Test is >50%
3. Scolochloa festucacea		yes	FACW	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Polygonum amphibium			OBL	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Lemna minor			OBL	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Carex atherodes			OBL		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' r)				Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1.					
		= Total Cover			
% Bare Ground in Herb Stratum:					
Remarks:					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT40

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:						Hydric Soil Present?		
Depth (inches):						<input type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) Closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):	+24		Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Water Table Present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):					
Saturation Present? (includes capillary fringe)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs								
Remarks: Shallow open water ringed by Scirpus and Sprangletop. No outlet. Non-jurisdictional. Large open water.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/29/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT41
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat: 46°10'40.28"N	Long: 99°16'50.12"W	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			

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

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks: Shoreline has Typha augustifolia and stands of Scolochloa festucacea. There is a fair amount of Lemna minor shoreward. Upland is Poa pratensis and Melilotus officinale, Solidago rigida, Cirsium arvense. Observed ruddy duck; yellowthroat, yellow-headed blackbird; brown-headed cowbird		

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. Typha augustifolia		yes	OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Scolochloa festucacea		yes	OBL	<input type="checkbox"/>	2. Dominance Test is >50%
3. Lemna minor		yes	OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Carex lanuginosa			OBL	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Teucrium canadense			FACW	<input type="checkbox"/>	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' r)				Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1.					
		= Total Cover			
% Bare Ground in Herb Stratum:					
Remarks:					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT41

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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 :	
<input type="checkbox"/>	Histosol (A1)	<input type="checkbox"/>	Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)	<input type="checkbox"/>	Sandy Redox (S5)	<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)	<input type="checkbox"/>	Stripped Matrix (S6)	<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input type="checkbox"/>	Hydrogen Sulfide (A4)	<input type="checkbox"/>	Loamy Mucky Mineral (F1)	<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)	<input type="checkbox"/>	Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/>	Depleted Matrix (F3)	<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)	<input type="checkbox"/>	Redox Dark Surface (F6)	<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Thick Dark Surface (A12)	<input type="checkbox"/>	Depleted Dark Surface (F7)	<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)	<input type="checkbox"/>	Redox Depressions (F8)	<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)		
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)				

Restrictive Layer (if present):		Hydric Soil Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Type:			
Depth (inches):			
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (minimum of two required)		
<input checked="" type="checkbox"/>	Surface Water (A1)	<input type="checkbox"/>	Salt Crust (B11)	<input type="checkbox"/>	Surface Soil Cracks (B6)
<input type="checkbox"/>	High Water Table (A2)	<input type="checkbox"/>	Aquatic Invertebrates (B13)	<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/>	Saturation (A3)	<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/>	Drainage Patterns (B10) Closed depression
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/>	Dry-Season Water Table (C2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)	<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)	<input type="checkbox"/>	Presence of Reduced Iron (C4)	<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Algal Mat or Crust (B4)	<input type="checkbox"/>	Thin Muck Surface (C7)	<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/>	Other (Explain in Remarks)	<input type="checkbox"/>	FAC-Neutral Test (D5)
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/>		<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)				

Field Observations:				Water Hydrology Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): +24			
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Saturation Present? (includes capillary fringe)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs
 Remarks: Large, open water. Deeper open water in the middle of this feature.

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/29/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT43
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks: Sparsely vegetated prairie pothole. The Rumex is standing in water and the Hordeum is on the edge of the surface water.			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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		<u>Total % Cover of:</u>	<u>Multiply by:</u>
Sapling/Shrub Stratum (Plot size: 15' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. Rumex mexicanus			FACW	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Hordeum jubatum			FACW	<input type="checkbox"/>	2. Dominance Test is >50%
3.				<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4.				<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5.				<input type="checkbox"/>	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' r)				Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1.					
		= Total Cover			
% Bare Ground in Herb Stratum:					
Remarks: Observed: killedeer pair					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT43

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:						Hydric Soil Present?		
Depth (inches):						<input type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input checked="" type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) Closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):	~6		Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Water Table Present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):					
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photographs								
Remarks: Small pothole. Wheatfield completely surrounds this feature. No outlet. Non-jurisdictional.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/29/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT45
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. Scirpus acutus			OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Lemna minor			OBL	<input type="checkbox"/>	2. Dominance Test is >50%
3. Hordeum jubatum			FACW	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Typha augustifolia			OBL	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Eleocharis palustris			OBL	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Carex vulpinoidea			OBL	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' r)				Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1.					
			= Total Cover		
% Bare Ground in Herb Stratum:					
Remarks: Dominant vegetation varies as the swale flows north. The Typha on the south end of this swale is very dense—it is probably the most abundant of the dominant species. Swale with an excavated stock pond dug in its midsection. Flows ultimately (without a defined channel) to the prairie pothole #WET44. Observed: muskrat working the stock pond; red-winged blackbird					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT45

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :		
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:			Hydric Soil Present?			<input type="checkbox"/> Yes <input type="checkbox"/> No		
Depth (inches):								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)						Secondary Indicators (minimum of two required)		
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10)	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): +36 in pond		Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Water Table Present?		<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):					
Saturation Present? (includes capillary fringe)		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photographs								
Remarks:								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh		Sampling Date: 6/29/2010	
Applicant/Owner: CPV		State: ND		Sampling Point: WT46	
Investigator(s): M. Cummings/S. Yarbrough			Section, Township, Range:		
Landform (hillslope, terrace, etc.):			Local relief (concave, convex, none)		Slope (%):
Subregion (LRR): Northern Great Plains		Lat:	Long:		Datum:
Soil Map Unit Name:			NWI Classification:		
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)					
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>					
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.					
Hydrophytic Vegetation Present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soil Present?		<input type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks: Prairie pothole. Eleocharis is probably the most abundant species.					

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. Eleocharis paulstris			OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Beckmannia syzigachne			OBL	<input type="checkbox"/>	2. Dominance Test is >50%
3. Spartina pectinata			FACW	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Rumex mexicanus			FACW	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Alisma triviale			OBL	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Agrostis plantago-aquatica				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' r)				Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1.					
			= Total Cover		
% Bare Ground in Herb Stratum:					
Remarks:					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT46

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:						Hydric Soil Present?		
Depth (inches):						<input type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) Closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):			Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Water Table Present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):					
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photographs								
Remarks: Closed depression. No outlet. Non-jurisdictional. Some open water.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT47

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:			Hydric Soil Present?			<input type="checkbox"/> Yes <input type="checkbox"/> No		
Depth (inches):								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) Closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):	Water Hydrology Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):						
Saturation Present? (includes capillary fringe)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs								
Remarks: Prairie pothole. Closed depression. No outlet. Non-jurisdictional								

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT48

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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 :	
<input type="checkbox"/>	Histosol (A1)	<input type="checkbox"/>	Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)	<input type="checkbox"/>	Sandy Redox (S5)	<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)	<input type="checkbox"/>	Stripped Matrix (S6)	<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input type="checkbox"/>	Hydrogen Sulfide (A4)	<input type="checkbox"/>	Loamy Mucky Mineral (F1)	<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)	<input type="checkbox"/>	Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/>	Depleted Matrix (F3)	<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)	<input type="checkbox"/>	Redox Dark Surface (F6)	<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Thick Dark Surface (A12)	<input type="checkbox"/>	Depleted Dark Surface (F7)	<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)	<input type="checkbox"/>	Redox Depressions (F8)	<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)		
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)				

Restrictive Layer (if present):		Hydric Soil Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Type:			
Depth (inches):			
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (minimum of two required)		
<input checked="" type="checkbox"/>	Surface Water (A1)	<input type="checkbox"/>	Salt Crust (B11)	<input type="checkbox"/>	Surface Soil Cracks (B6)
<input type="checkbox"/>	High Water Table (A2)	<input type="checkbox"/>	Aquatic Invertebrates (B13)	<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/>	Saturation (A3)	<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)	<input type="checkbox"/>	Drainage Patterns (B10)
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/>	Dry-Season Water Table (C2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)	<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)	<input type="checkbox"/>	Presence of Reduced Iron (C4)	<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Algal Mat or Crust (B4)	<input type="checkbox"/>	Thin Muck Surface (C7)	<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/>	Other (Explain in Remarks)	<input type="checkbox"/>	FAC-Neutral Test (D5)
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)			<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)				

Field Observations:				Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): +24			
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photographs
 Remarks: Closed depression; no outlet. Non-jurisdictional. Big open water.

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/29/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT49
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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		<u>Total % Cover of:</u>	<u>Multiply by:</u>
Sapling/Shrub Stratum (Plot size: 15' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. <i>Scolochloa festucacea</i>			FACW	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. <i>Carex lanuginosa</i>			OBL	<input type="checkbox"/>	2. Dominance Test is >50%
3. <i>Carex atherodes</i>			OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. <i>Spartina pectinata</i>			FACW	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. <i>Lemna minor</i>			OBL	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. <i>Scirpus acutus</i>			OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7. <i>Phalaris arundinacea</i> (sm spike)			FACW		
8. Pondweed			OBL		
9. <i>Polygonum amphibium</i>			OBL		
	100	= Total Cover			
Woody Vine Stratum (Plot size: 30' r)				Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1.					
		= Total Cover			
% Bare Ground in Herb Stratum:					
Remarks: There is quite a bit of <i>Scolochloa</i> around the perimeter of the lake, with stands of <i>Carex</i> and <i>Spartina</i> (chokecherry tree back from shoreline). Upland = smooth brome, snowberry, Canada thistle, Absinthium wormwood.					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT49

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:			Hydric Soil Present?			<input type="checkbox"/> Yes <input type="checkbox"/> No		
Depth (inches):								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) Closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches): +24		Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches):					
Saturation Present? (includes capillary fringe)	<input type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches):					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photographs								
Remarks: Big open water prairie pothole. No outlet. Non-jurisdictional.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/29/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT50
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks: Strongly dominated by reed canarygrass. Upland = Western wheatgrass and smooth brome. This is a pothole in the middle of a hay pasture.			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. Phalaris arundinacea			FACW+	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Polygonum amphibium			OBL	<input type="checkbox"/>	2. Dominance Test is >50%
3. Eleocharis palustris			OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Scirpus acutus			OBL	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5.				<input type="checkbox"/>	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' r)				Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1.					
		= Total Cover			
% Bare Ground in Herb Stratum:					
Remarks: Standing water; little open water.					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT50

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:			Hydric Soil Present?			<input type="checkbox"/> Yes <input type="checkbox"/> No		
Depth (inches):								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) Closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches): +18		Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches):					
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches): surface					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs								
Remarks: Prairie pothole. No outlet. Non-jurisdictional.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/29/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT51
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks: The water smartweed and reed canarygrass dominate this prairie pothole. Uplands = smooth brome and planted wheat field			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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	<u>Total % Cover of:</u>	<u>Multiply by:</u>
Sapling/Shrub Stratum (Plot size: 15' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. Polygonum amphibium			OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Phalaris arundinacea			FACW	<input type="checkbox"/>	2. Dominance Test is >50%
3. Spartina pectinata			FACW	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Scolochloa festucacea			FACW	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Potamogeton (small leaf)			OBL	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Agropyron smithii			FACU	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' r)				Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1.					
			= Total Cover		
% Bare Ground in Herb Stratum:					
Remarks:					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT51

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:			Hydric Soil Present?			<input type="checkbox"/> Yes <input type="checkbox"/> No		
Depth (inches):								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) Closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):	+24		Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Water Table Present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):					
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs								
Remarks: Closed depression. No outlet. Non-jurisdictional.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh		Sampling Date: 6/29/2010	
Applicant/Owner: CPV		State: ND		Sampling Point: WT52	
Investigator(s): M. Cummings/S. Yarbrough			Section, Township, Range:		
Landform (hillslope, terrace, etc.):			Local relief (concave, convex, none)		Slope (%):
Subregion (LRR): Northern Great Plains		Lat:	Long:		Datum:
Soil Map Unit Name:			NWI Classification:		
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)					
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>					
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.					
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No					
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
Remarks:					

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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	<u>Total % Cover of:</u>	<u>Multiply by:</u>
Sapling/Shrub Stratum (Plot size: 15' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. Typha angustifolia			OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Spartina pectinata			FACW	<input type="checkbox"/>	2. Dominance Test is >50%
3. Polygonum amphibium			OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Rumex mexicanus			FACW	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Scirpus acutus			OBL	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Beckmannia syzigachne			OBL	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' r)				Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1.					
			= Total Cover		
% Bare Ground in Herb Stratum:					
Remarks: Western wheatgrass and Hordeum jubatum around the outer margin. Upland = hay meadow, smooth brome, snowy milkweed					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT52

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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 :	
<input type="checkbox"/>	Histosol (A1)	<input type="checkbox"/>	Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)	<input type="checkbox"/>	Sandy Redox (S5)	<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)	<input type="checkbox"/>	Stripped Matrix (S6)	<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input type="checkbox"/>	Hydrogen Sulfide (A4)	<input type="checkbox"/>	Loamy Mucky Mineral (F1)	<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)	<input type="checkbox"/>	Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/>	Depleted Matrix (F3)	<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)	<input type="checkbox"/>	Redox Dark Surface (F6)	<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Thick Dark Surface (A12)	<input type="checkbox"/>	Depleted Dark Surface (F7)	<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)	<input type="checkbox"/>	Redox Depressions (F8)	<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)		
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)				

Restrictive Layer (if present):		Hydric Soil Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Type:			
Depth (inches):			
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (minimum of two required)		
<input checked="" type="checkbox"/>	Surface Water (A1)	<input type="checkbox"/>	Salt Crust (B11)	<input type="checkbox"/>	Surface Soil Cracks (B6)
<input type="checkbox"/>	High Water Table (A2)	<input type="checkbox"/>	Aquatic Invertebrates (B13)	<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/>	Saturation (A3)	<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)	<input type="checkbox"/>	Drainage Patterns (B10)
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/>	Dry-Season Water Table (C2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)	<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)	<input type="checkbox"/>	Presence of Reduced Iron (C4)	<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Algal Mat or Crust (B4)	<input type="checkbox"/>	Thin Muck Surface (C7)	<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/>	Other (Explain in Remarks)	<input type="checkbox"/>	FAC-Neutral Test (D5)
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)			<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)				

Field Observations:				Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):	surface		
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):	surface		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photographs
 Remarks: Swale—drains to a prairie pothole on the other side of the road. Couldn't see any standing water.

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/29/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT53
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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		<u>Total % Cover of:</u>	<u>Multiply by:</u>
Sapling/Shrub Stratum (Plot size: 15' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. Typha augustifolia			OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Poa palustris			FACW	<input type="checkbox"/>	2. Dominance Test is >50%
3. Eleocharis palustris			OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Mint ? (no flowers)				<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Carex lanuginosa			OBL	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Spartina pectinata			FACW		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' r)				Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1.					
		= Total Cover			
% Bare Ground in Herb Stratum:					
Remarks: Typha is the clearly dominant species in this system. Poa palustris lines the outer margin of this linear wetland. Wild plum thicket downstream. Upland = grading into western wheatgrass, then Poa pratensis and Symphoricarpos. Observed: grackles; white-tailed deer					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT53

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10 YR 2/1						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.)						Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/>	Histosol (A1)			<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)			<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)			<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input type="checkbox"/>	Hydrogen Sulfide (A4)			<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)			<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)			<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)			<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Thick Dark Surface (A12)			<input type="checkbox"/>	Depleted Dark Surface (F7)		<input checked="" type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)			<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)			<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)			
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:							Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Depth (inches):								
Remarks: aquic moisture regime								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)						Secondary Indicators (minimum of two required)		
<input checked="" type="checkbox"/>	Surface Water (A1)			<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)
<input type="checkbox"/>	High Water Table (A2)			<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/>	Saturation (A3)			<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) Swale
<input type="checkbox"/>	Water Marks (B1)			<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)			<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)			<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Algal Mat or Crust (B4)			<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)			<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?		<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):		Water Hydrology Present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Water Table Present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): 13					
Saturation Present? (includes capillary fringe)		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): surface					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photos								
Remarks: Swale. It connects an upgradient drainage (with potholes) down to a big lake. Likely non-jurisdictional but we should check.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/29/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT54
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. Juncus balticus			OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Eleocharis palustris			OBL	<input type="checkbox"/>	2. Dominance Test is >50%
3. Carex lanuginosa			OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Scirpus americanus			OBL	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Scirpus acutus			OBL	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Typha augustifolia			OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7. Hordeum jubatum			FACW		
8.					
9.					
			= Total Cover		
Woody Vine Stratum (Plot size: 30' r)				Hydrophytic Vegetation Present?	
1.				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
			= Total Cover		
% Bare Ground in Herb Stratum:					
Remarks: Swale lined with dense Juncus balticus. Deeper water has Eleocharis and Typha. There are Carex and Scirpus mixed in with the Juncus balticus.					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT54

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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 :	
<input type="checkbox"/>	Histosol (A1)	<input type="checkbox"/>	Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)	<input type="checkbox"/>	Sandy Redox (S5)	<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)	<input type="checkbox"/>	Stripped Matrix (S6)	<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input type="checkbox"/>	Hydrogen Sulfide (A4)	<input type="checkbox"/>	Loamy Mucky Mineral (F1)	<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)	<input type="checkbox"/>	Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/>	Depleted Matrix (F3)	<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)	<input type="checkbox"/>	Redox Dark Surface (F6)	<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Thick Dark Surface (A12)	<input type="checkbox"/>	Depleted Dark Surface (F7)	<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)	<input type="checkbox"/>	Redox Depressions (F8)	<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)		
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)				

Restrictive Layer (if present):		Hydric Soil Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Type:			
Depth (inches):			
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (minimum of two required)		
<input checked="" type="checkbox"/>	Surface Water (A1)	<input type="checkbox"/>	Salt Crust (B11)	<input type="checkbox"/>	Surface Soil Cracks (B6)
<input type="checkbox"/>	High Water Table (A2)	<input type="checkbox"/>	Aquatic Invertebrates (B13)	<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/>	Saturation (A3)	<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/>	Drainage Patterns (B10) swale/north
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/>	Dry-Season Water Table (C2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)	<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)	<input type="checkbox"/>	Presence of Reduced Iron (C4)	<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Algal Mat or Crust (B4)	<input type="checkbox"/>	Thin Muck Surface (C7)	<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/>	Other (Explain in Remarks)	<input type="checkbox"/>	FAC-Neutral Test (D5)
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)			<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)				

Field Observations:				Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): +12			
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photographs
 Remarks: Swale that connects a small prairie pothole to a much bigger, deeper lake. No outlets, otherwise non-jurisdictional.

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/30/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT55
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. Eleocharis palustris			OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Calamagrostis inexplansa			FACW	<input type="checkbox"/>	2. Dominance Test is >50%
3. Polygonum amphibium			OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Lemna minor			OBL	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Carex lauginosa			OBL	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Utricularia macrorhiza			OBL	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' r)				Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1.					
			= Total Cover		
% Bare Ground in Herb Stratum:					
Remarks: This is mostly an open water of the U.S. Very little wetland fringe vegetation—some aquatics.					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT55

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :		
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:			Hydric Soil Present?			<input type="checkbox"/> Yes <input type="checkbox"/> No		
Depth (inches):								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)						Secondary Indicators (minimum of two required)		
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):	Water Hydrology Present?			<input type="checkbox"/> Yes <input type="checkbox"/> No		
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):						
Saturation Present? (includes capillary fringe)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photographs								
Remarks: No outlet. Non-jurisdictional.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT56

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:			Hydric Soil Present?			<input type="checkbox"/> Yes <input type="checkbox"/> No		
Depth (inches):								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): +24	Water Hydrology Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):						
Saturation Present? (includes capillary fringe)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photographs								
Remarks: Prairie pothole. Closed depression. No outlet. Non-jurisdictional.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/30/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT57
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			

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

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Remarks:		

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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	<u>Total % Cover of:</u>	<u>Multiply by:</u>
Sapling/Shrub Stratum (Plot size: 15' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. Beckmannia syzigachne		yes	OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Eleocharis palustris		yes	OBL	<input type="checkbox"/>	2. Dominance Test is >50%
3. Alisma plantago-aquatica			OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Carex lanuginosa		yes	OBL	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Carex atherodes			OBL	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Glyceria striata			OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7. Spartina pectinata		yes	FACW		
8.					
9.					
			= Total Cover		
Woody Vine Stratum (Plot size: 30' r)				Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1.					
			= Total Cover		
% Bare Ground in Herb Stratum:					
Remarks: Beckmannia and Carex dominate. Spartina is also important here.					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT57

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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 :	
<input type="checkbox"/>	Histosol (A1)	<input type="checkbox"/>	Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)	<input type="checkbox"/>	Sandy Redox (S5)	<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)	<input type="checkbox"/>	Stripped Matrix (S6)	<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input type="checkbox"/>	Hydrogen Sulfide (A4)	<input type="checkbox"/>	Loamy Mucky Mineral (F1)	<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)	<input type="checkbox"/>	Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/>	Depleted Matrix (F3)	<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)	<input type="checkbox"/>	Redox Dark Surface (F6)	<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Thick Dark Surface (A12)	<input type="checkbox"/>	Depleted Dark Surface (F7)	<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)	<input type="checkbox"/>	Redox Depressions (F8)	<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)		
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)				

Restrictive Layer (if present):		Hydric Soil Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Type:			
Depth (inches):			
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (minimum of two required)		
<input checked="" type="checkbox"/>	Surface Water (A1)	<input type="checkbox"/>	Salt Crust (B11)	<input type="checkbox"/>	Surface Soil Cracks (B6)
<input type="checkbox"/>	High Water Table (A2)	<input type="checkbox"/>	Aquatic Invertebrates (B13)	<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/>	Saturation (A3)	<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)	<input type="checkbox"/>	Drainage Patterns (B10)
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/>	Dry-Season Water Table (C2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)	<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)	<input type="checkbox"/>	Presence of Reduced Iron (C4)	<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Algal Mat or Crust (B4)	<input type="checkbox"/>	Thin Muck Surface (C7)	<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/>	Other (Explain in Remarks)	<input type="checkbox"/>	FAC-Neutral Test (D5)
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/>		<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)				

Field Observations:				Water Hydrology Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): +24			
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photographs
 Remarks: Small open water pothole. Connected by swale to Wetland #55.

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT58

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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 :		
<input type="checkbox"/>	Histosol (A1)	<input type="checkbox"/>	Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)	<input type="checkbox"/>	Sandy Redox (S5)	<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)	<input type="checkbox"/>	Stripped Matrix (S6)	<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)	<input type="checkbox"/>	Loamy Mucky Mineral (F1)	<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)	<input type="checkbox"/>	Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/>	Depleted Matrix (F3)	<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)	<input type="checkbox"/>	Redox Dark Surface (F6)	<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)	<input type="checkbox"/>	Depleted Dark Surface (F7)	<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)	<input type="checkbox"/>	Redox Depressions (F8)	<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)			
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)					

Restrictive Layer (if present):		Hydric Soil Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Type:			
Depth (inches):			
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (minimum of two required)		
<input type="checkbox"/>	Surface Water (A1)	<input type="checkbox"/>	Salt Crust (B11)	<input type="checkbox"/>	Surface Soil Cracks (B6)
<input type="checkbox"/>	High Water Table (A2)	<input type="checkbox"/>	Aquatic Invertebrates (B13)	<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/>	Saturation (A3)	<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/>	Drainage Patterns (B10)
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/>	Dry-Season Water Table (C2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)	<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)	<input type="checkbox"/>	Presence of Reduced Iron (C4)	<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Algal Mat or Crust (B4)	<input type="checkbox"/>	Thin Muck Surface (C7)	<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/>	Other (Explain in Remarks)	<input type="checkbox"/>	FAC-Neutral Test (D5)
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)			<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)				

Field Observations:			Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Surface Water Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):		
Water Table Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Depth (inches):		
Saturation Present? (includes capillary fringe)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs
 Remarks: Prairie pothole. It outlets to WET55. Non-jurisdictional. Presence of algal mats.

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/30/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT59
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input checked="" type="checkbox"/> , Soil <input checked="" type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks: Heavily grazed by cattle in this pasture.			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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		<u>Total % Cover of:</u>	<u>Multiply by:</u>
Sapling/Shrub Stratum (Plot size: 15' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. Typha augustifolia			OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Glyceria striata			OBL	<input type="checkbox"/>	2. Dominance Test is >50%
3. Carex lanuginosa			OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Eleocharis palustris			OBL	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Hordeum jubatum			FACW	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Carex brevior			FACU	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' r)				Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1.					
		= Total Cover			
% Bare Ground in Herb Stratum:					
Remarks: West of windmill. Upland: snowberry, bluegrass					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT59

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:						Hydric Soil Present?		
Depth (inches):						<input type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input checked="" type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):			Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Water Table Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth (inches):					
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches): surface					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs								
Remarks: Prairie pothole. No outlet. Non-jurisdictional.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/30/10
Applicant/Owner: CPV		State: ND	Sampling Point: WT60
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input checked="" type="checkbox"/> , Soil <input checked="" type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input type="checkbox"/>			

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

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks: Heavily grazed (degraded)		

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. Carex atherodes			OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Eleocharis palustris			OBL	<input type="checkbox"/>	2. Dominance Test is >50%
3. Carex lanuginosa			OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Alisma plantago-aquatica			OBL	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5.				<input type="checkbox"/>	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' r)				Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1.					
		= Total Cover			
% Bare Ground in Herb Stratum:					
Remarks:					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT60

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:						Hydric Soil Present?		
Depth (inches):						<input type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) Closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):			Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Water Table Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth (inches):					
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches): surface					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs.								
Remarks: Prairie pothole. No outlet. Non-jurisdictional. Very little open water. Leaf litter.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT61

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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 :	
<input type="checkbox"/>	Histosol (A1)	<input type="checkbox"/>	Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)	<input type="checkbox"/>	Sandy Redox (S5)	<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)	<input type="checkbox"/>	Stripped Matrix (S6)	<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input type="checkbox"/>	Hydrogen Sulfide (A4)	<input type="checkbox"/>	Loamy Mucky Mineral (F1)	<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)	<input type="checkbox"/>	Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/>	Depleted Matrix (F3)	<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)	<input type="checkbox"/>	Redox Dark Surface (F6)	<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Thick Dark Surface (A12)	<input type="checkbox"/>	Depleted Dark Surface (F7)	<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)	<input type="checkbox"/>	Redox Depressions (F8)	<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)		
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)				

Restrictive Layer (if present):		Hydric Soil Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Type:			
Depth (inches):			
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (minimum of two required)		
<input checked="" type="checkbox"/>	Surface Water (A1)	<input type="checkbox"/>	Salt Crust (B11)	<input type="checkbox"/>	Surface Soil Cracks (B6)
<input type="checkbox"/>	High Water Table (A2)	<input type="checkbox"/>	Aquatic Invertebrates (B13)	<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/>	Saturation (A3)	<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/>	Drainage Patterns (B10) Closed depression
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/>	Dry-Season Water Table (C2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)	<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)	<input type="checkbox"/>	Presence of Reduced Iron (C4)	<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Algal Mat or Crust (B4)	<input type="checkbox"/>	Thin Muck Surface (C7)	<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/>	Other (Explain in Remarks)	<input type="checkbox"/>	FAC-Neutral Test (D5)
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/>		<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)				

Field Observations:			Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Surface Water Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):		
Water Table Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Depth (inches):		
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): surface		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs.
 Remarks: Large lake. Still a prairie pothole, but a really big one.

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/30/10
Applicant/Owner: CPV		State: ND	Sampling Point: WT62
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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	<u>Total % Cover of:</u>	<u>Multiply by:</u>	
Sapling/Shrub Stratum (Plot size: 15' r)				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' r)				Hydrophytic Vegetation Indicators:		
1. Eleocharis palustris		yes	OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation	
2. Polygonum amphibium		yes	OBL	<input type="checkbox"/>	2. Dominance Test is >50%	
3. Beckmannia syzigachne			OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹	
4. Rumex mexicanus			FACW	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
5. Typha angustifolia			OBL	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)	
6. Rumex crispus			FACW	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' r)				Hydrophytic Vegetation Present?		
1.						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
			= Total Cover			
% Bare Ground in Herb Stratum:						
Remarks:						

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT62

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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 :	
<input type="checkbox"/>	Histosol (A1)	<input type="checkbox"/>	Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)	<input type="checkbox"/>	Sandy Redox (S5)	<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)	<input type="checkbox"/>	Stripped Matrix (S6)	<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input type="checkbox"/>	Hydrogen Sulfide (A4)	<input type="checkbox"/>	Loamy Mucky Mineral (F1)	<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)	<input type="checkbox"/>	Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/>	Depleted Matrix (F3)	<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)	<input type="checkbox"/>	Redox Dark Surface (F6)	<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Thick Dark Surface (A12)	<input type="checkbox"/>	Depleted Dark Surface (F7)	<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)	<input type="checkbox"/>	Redox Depressions (F8)	<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)		
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)				

Restrictive Layer (if present):		Hydric Soil Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Type:			
Depth (inches):			
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (minimum of two required)		
<input checked="" type="checkbox"/>	Surface Water (A1)	<input type="checkbox"/>	Salt Crust (B11)	<input type="checkbox"/>	Surface Soil Cracks (B6)
<input type="checkbox"/>	High Water Table (A2)	<input type="checkbox"/>	Aquatic Invertebrates (B13)	<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/>	Saturation (A3)	<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/>	Drainage Patterns (B10) Closed depression
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/>	Dry-Season Water Table (C2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)	<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)	<input type="checkbox"/>	Presence of Reduced Iron (C4)	<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input checked="" type="checkbox"/>	Algal Mat or Crust (B4)	<input type="checkbox"/>	Thin Muck Surface (C7)	<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/>	Other (Explain in Remarks)	<input type="checkbox"/>	FAC-Neutral Test (D5)
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)			<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)				

Field Observations:				Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Water Table Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Depth (inches):			
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): surface			

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs.
 Remarks: Prairie pothole. No outlet. Non-jurisdictional.

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT63

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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:		
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:						Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Depth (inches):								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)						Secondary Indicators (minimum of two required)		
<input type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) Closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?		<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):		Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Water Table Present?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Depth (inches):					
Saturation Present? (includes capillary fringe)		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): surface					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs.								
Remarks: Prairie pothole. No outlet. Non-jurisdictional.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/30/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT64
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. Carex altherodes			OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Phalaris anundinacea			FACW	<input type="checkbox"/>	2. Dominance Test is >50%
3. Carex vulpinoidea			OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Glyceria striata			OBL	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Typha angustifolia			OBL	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Polygomun amphibium			OBL	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' r)				Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1.					
			= Total Cover		
% Bare Ground in Herb Stratum:					
Remarks:					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT64

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:						Hydric Soil Present?		
Depth (inches):						<input type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) Closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):			Water Hydrology Present?		
Water Table Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth (inches):					
Saturation Present? (includes capillary fringe)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches): surface					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs.								
Remarks: No large areas of open water, but the prairie pothole is inundated.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT65

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:						Hydric Soil Present?		
Depth (inches):						<input type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) Closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):			Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Water Table Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth (inches):					
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches): surface					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs.								
Remarks: Prairie pothole alongside 51 st Avenue. No outlet. Non-jurisdictional. This pothole was cut off by the building of the road.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT66

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:						Hydric Soil Present?		
Depth (inches):						<input type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) Closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input checked="" type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):	+24		Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Water Table Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth (inches):					
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):	surface				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs.								
Remarks: Some open water. Prairie pothole.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 6/30/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT67
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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	<u>Total % Cover of:</u>	<u>Multiply by:</u>	
Sapling/Shrub Stratum (Plot size: 15' r)				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' r)				Hydrophytic Vegetation Indicators:		
1. Phalaris arundinacea			FACW	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation	
2. Scirpus acutus			OBL	<input type="checkbox"/>	2. Dominance Test is >50%	
3. Carex sp.				<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹	
4. Eleocharis palustris			OBL	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
5. Scolochloa festucacea			OBL	<input type="checkbox"/>	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' r)				Hydrophytic Vegetation Present?		
1.						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
			= Total Cover			
% Bare Ground in Herb Stratum:						
Remarks:						

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT67

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:			Hydric Soil Present?			<input type="checkbox"/> Yes <input type="checkbox"/> No		
Depth (inches):								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) Closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): +24	Water Hydrology Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Water Table Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Depth (inches):						
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): surface						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs.								
Remarks: Large open waterbody. Water of the U.S. No outlet. Non-jurisdictional.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh		Sampling Date: 7/9/2010	
Applicant/Owner: CPV		State: ND		Sampling Point: WT68	
Investigator(s): M. Cummings/S. Yarbrough			Section, Township, Range:		
Landform (hillslope, terrace, etc.):			Local relief (concave, convex, none)		Slope (%):
Subregion (LRR): Northern Great Plains		Lat:	Long:		Datum:
Soil Map Unit Name:			NWI Classification:		
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)					
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>					
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.					
Hydrophytic Vegetation Present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soil Present?		<input type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:					

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. Typha augustifolia			OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Polygonum amphibium			OBL	<input type="checkbox"/>	2. Dominance Test is >50%
3. Beckmannia syzigachne			OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Carex atherodes			OBL	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Scirpus acutus			OBL	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Eleocharis palustris			OBL	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' r)				Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1.					
			= Total Cover		
% Bare Ground in Herb Stratum:					
Remarks: Prairie pothole, relatively small. Upland is Solidago, Agropyron, Poa, Ironweed, Symphoricarpos occidentalis, Bromus inermis					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT68

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:						Hydric Soil Present?		
Depth (inches):						<input type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth (inches):			Water Hydrology Present?		
Water Table Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth (inches):					
Saturation Present? (includes capillary fringe)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth (inches):					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photographs								
Remarks: Currently dry. The temperatures have been climbing into the 90s with no rain for the last two weeks or so.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 7/9/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT69
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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	<u>Total % Cover of:</u>	<u>Multiply by:</u>
Sapling/Shrub Stratum (Plot size: 15' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. Eleocharis palustris			OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Eleocharis acicularis			OBL	<input type="checkbox"/>	2. Dominance Test is >50%
3. Polygonum amphibium			OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Potamogeton (variable leaf)				<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Carex lanuginosa			OBL	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Carex atherodes			OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7. Rumex mexicanus			FACW		
8. Phalaris arundinacea			FACW+		
9.					
			= Total Cover		
Woody Vine Stratum (Plot size: 30' r)				Hydrophytic Vegetation Present?	
1.				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
			= Total Cover		
% Bare Ground in Herb Stratum:					
Remarks: E. palustris dominates in standing water. E. acicularis dominates shoreline. P. amphibium common in standing water. Upland = Achillea lamellosa; Ratibida columnifera, Agrophron smithii, Stipa comata, Ambrosia, Carex brevior, Ponicum capillace or Ticklegrass.					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT69

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:			Hydric Soil Present?			<input type="checkbox"/> Yes <input type="checkbox"/> No		
Depth (inches):								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): +24	Water Hydrology Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Water Table Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Depth (inches):						
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): surface						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photographs								
Remarks: Prairie pothole. Lots of open water. No outlet. No jurisdictional. Two or three families of Mallards on pond.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT70

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:						Hydric Soil Present?		
Depth (inches):						<input type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input checked="" type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):			Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Water Table Present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):					
Saturation Present? (includes capillary fringe)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photographs								
Remarks: Prairie pothole. Dried up for the year. Mud cracks. No outlet. Non-jurisdictional.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh		Sampling Date: 7/9/2010	
Applicant/Owner: CPV		State: ND		Sampling Point: WT71	
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:			
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)		Slope (%):	
Subregion (LRR): Northern Great Plains		Lat:		Long:	
Soil Map Unit Name:		NW1 Classification:			
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)					
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.					
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No					
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
Remarks:					

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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' r)				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' r)				Hydrophytic Vegetation Indicators:		
1. Scirpus acutus		yes	OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation	
2. Phalaris arundinacea			FACW+	<input type="checkbox"/>	2. Dominance Test is >50%	
3. Eleocharis palustris			OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹	
4. Typha augustifolia		yes	OBL	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
5. Salix exiqua			FACW	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)	
6. Spartina pectinata			FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
7. Juncus balticus			OBL			
8. Scirpus pungens			OBL			
9.						
			= Total Cover			
Woody Vine Stratum (Plot size: 30' r)				Hydrophytic Vegetation Present?		
1.						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
			= Total Cover			
% Bare Ground in Herb Stratum:						
Remarks: This prairie pothole is bisected by a road and cattle graze on the south side. Hammered the shoreline. There is a dominant aquatic.						

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT71

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:			Hydric Soil Present?			<input type="checkbox"/> Yes <input type="checkbox"/> No		
Depth (inches):								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10)	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):	Water Hydrology Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):						
Saturation Present? (includes capillary fringe)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photographs								
Remarks: Prairie pothole. No outlet. Non-jurisdictional. Lots of open water.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh		Sampling Date: 7/9/2010	
Applicant/Owner: CPV		State: ND		Sampling Point: WT72	
Investigator(s): M. Cummings/S. Yarbrough			Section, Township, Range:		
Landform (hillslope, terrace, etc.):			Local relief (concave, convex, none)		Slope (%):
Subregion (LRR): Northern Great Plains		Lat:	Long:		Datum:
Soil Map Unit Name:			NWI Classification:		
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)					
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>					
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.					
Hydrophytic Vegetation Present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soil Present?		<input type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:					

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. Phalaris arundinacea		yes	FACW+	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Lemna minor		yes	OBL	<input type="checkbox"/>	2. Dominance Test is >50%
3. Typha angustifolia			OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Scirpus acutus			OBL	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5.				<input type="checkbox"/>	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' r)				Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1.					
			= Total Cover		
% Bare Ground in Herb Stratum:					
Remarks: Lemna minor bloom on pond surface. Much more pronounced than two weeks ago. It looks like a green carpet.					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT72

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :		
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:			Hydric Soil Present?			<input type="checkbox"/> Yes <input type="checkbox"/> No		
Depth (inches):								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)						Secondary Indicators (minimum of two required)		
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input type="checkbox"/>	Drainage Patterns (B10) closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): +12	Water Hydrology Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):						
Saturation Present? (includes capillary fringe)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs.								
Remarks: Prairie pothole. No outlet. Non-jurisdictional.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT73

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :		
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input checked="" type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:			Hydric Soil Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Depth (inches):								
Remarks: Sulfidic odor; aquic moisture regime; gleyed or low-chroma colors								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)						Secondary Indicators (minimum of two required)		
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): +12	Water Hydrology Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):						
Saturation Present? (includes capillary fringe)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photographs								
Remarks: Sulfidic odor. Prairie pothole. No outlet. Non-jurisdictional. observed: ducks, willet, dead cow here, red-winged blackbirds.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh		Sampling Date: 7/9/2010	
Applicant/Owner: CPV		State: ND		Sampling Point: WT74	
Investigator(s): M. Cummings/S. Yarbrough			Section, Township, Range:		
Landform (hillslope, terrace, etc.):			Local relief (concave, convex, none)		Slope (%):
Subregion (LRR): Northern Great Plains		Lat:	Long:		Datum:
Soil Map Unit Name:			NWI Classification:		
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)					
Are Vegetation <input checked="" type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>					
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.					
Hydrophytic Vegetation Present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soil Present?		<input type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:					

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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	<u>Total % Cover of:</u>	<u>Multiply by:</u>
Sapling/Shrub Stratum (Plot size: 15' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. <i>Spartina pectinata</i>			FACW	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. <i>Eleocharis palustris</i>			OBL	<input type="checkbox"/>	2. Dominance Test is >50%
3. <i>Phalaris anundinacea</i>			FACW+	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. <i>Mentha arvensis</i>			FACW	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. <i>Polygonum amphibium</i>			OBL	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. <i>Carex vulpinodea</i>			OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7. <i>Drymocallis</i>					
8.					
9.					
			= Total Cover		
Woody Vine Stratum (Plot size: 30' r)				Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1.					
			= Total Cover		
% Bare Ground in Herb Stratum:					
Remarks: heavily grazed					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT74

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:						Hydric Soil Present?		
Depth (inches):						<input type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):			Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Water Table Present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):					
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photographs								
Remarks: Prairie pothole. No outlet. Non-jurisdictional. No surface water. Surface is saturated.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 7/9/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT75
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input checked="" type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks: grazed			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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' r)				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' r)				Hydrophytic Vegetation Indicators:		
1. Scirpus pungens		yes	OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation	
2. Scirpus microcarpus		yes	OBL	<input type="checkbox"/>	2. Dominance Test is >50%	
3. Xanthium strumarium			FAC	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹	
4. Agropyron smithii			FACU	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
5. Eleocharis palustris		yes	OBL	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)	
6. Calamagrostis inexpansa			FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
7. Spartina pectinata		yes	FACW			
8. Typha augustifolia		yes	OBL			
9. Carex lauginosa			OBL			
10. Scirpus acutus		yes	OBL			
11. Glyceria grandis						
		= Total Cover				
Woody Vine Stratum (Plot size: 30' r)				Hydrophytic Vegetation Present?		
1.						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		= Total Cover				
% Bare Ground in Herb Stratum:						
Remarks: Grazed. Peters out on its south end by the county road.						

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT75

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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 :	
<input type="checkbox"/>	Histosol (A1)	<input type="checkbox"/>	Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)	<input type="checkbox"/>	Sandy Redox (S5)	<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)	<input type="checkbox"/>	Stripped Matrix (S6)	<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input type="checkbox"/>	Hydrogen Sulfide (A4)	<input type="checkbox"/>	Loamy Mucky Mineral (F1)	<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)	<input type="checkbox"/>	Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/>	Depleted Matrix (F3)	<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)	<input type="checkbox"/>	Redox Dark Surface (F6)	<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Thick Dark Surface (A12)	<input type="checkbox"/>	Depleted Dark Surface (F7)	<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)	<input type="checkbox"/>	Redox Depressions (F8)	<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)		
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)				

Restrictive Layer (if present):		Hydric Soil Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Type:			
Depth (inches):			
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (minimum of two required)		
<input checked="" type="checkbox"/>	Surface Water (A1)	<input type="checkbox"/>	Salt Crust (B11)	<input type="checkbox"/>	Surface Soil Cracks (B6)
<input type="checkbox"/>	High Water Table (A2)	<input type="checkbox"/>	Aquatic Invertebrates (B13)	<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/>	Saturation (A3)	<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/>	Drainage Patterns (B10)
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/>	Dry-Season Water Table (C2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)	<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)	<input type="checkbox"/>	Presence of Reduced Iron (C4)	<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Algal Mat or Crust (B4)	<input type="checkbox"/>	Thin Muck Surface (C7)	<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/>	Other (Explain in Remarks)	<input type="checkbox"/>	FAC-Neutral Test (D5)
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)			<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)				

Field Observations:				Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 Remarks: Swale. Flows from prairie pothole to the north. The swale ends on the Spitzer place.

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT76

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:						Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Depth (inches):								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input checked="" type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?		<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):		Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Water Table Present?		<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):					
Saturation Present? (includes capillary fringe)		<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photographs								
Remarks: mud cracks								

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT77

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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:		
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:						Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Depth (inches):								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?		<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):		Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Water Table Present?		<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):					
Saturation Present? (includes capillary fringe)		<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photographs								
Remarks:								

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT78

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:			Hydric Soil Present?			<input type="checkbox"/> Yes <input type="checkbox"/> No		
Depth (inches):								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): +12	Water Hydrology Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Water Table Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Depth (inches):						
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): surface						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photographs								
Remarks: No outlet. Non-jurisdictional.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 7/10/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT79
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. Salix amygdaloides			FACW	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		<u>Total % Cover of:</u>	<u>Multiply by:</u>
Sapling/Shrub Stratum (Plot size: 15' r)				OBL species	x 1 =
1. Populus deltoides			FAC	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' r)				Hydrophytic Vegetation Indicators:	
1. Typha augustifolia			OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Salix exigua			FACW+	<input type="checkbox"/>	2. Dominance Test is >50%
3. Apocynum cannabinum			FAC	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Phalaris arundinacea			FACW	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Carex atherodes			OBL	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Typha latifolia			OBL	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' r)				Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
1.					
		= Total Cover			
% Bare Ground in Herb Stratum:					
Remarks: Cattails dominate. PFO wetland. Good bird diversity.					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT79

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:						Hydric Soil Present?		
Depth (inches):						<input type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches):		Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches):					
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches): surface					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photographs								
Remarks: No outlet. Non-jurisdictional.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 7/10/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT80
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input checked="" type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks: Partially disturbed hayfield			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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	<u>Total % Cover of:</u>	<u>Multiply by:</u>
Sapling/Shrub Stratum (Plot size: 15' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. <i>Spartina pectinata</i>		yes	FACW	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. <i>Juncus balticus</i>		yes	OBL	<input type="checkbox"/>	2. Dominance Test is >50%
3. <i>Carex lanuginosa</i>		yes	OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. <i>Rumex crispus</i>			FACW	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. <i>Typha angustifolia</i>			OBL	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. <i>Phalaris arundinacea</i>		yes	FACW	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' r)				Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1.					
			= Total Cover		
% Bare Ground in Herb Stratum:					
Remarks: <i>Spartina</i> , <i>Phalaris</i> , <i>C. lanuginosa</i> , and <i>J. balticus</i> dominate. The landowner hayed part of this field. Lots of moss in hayed area.					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT80

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :		
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input checked="" type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:			Hydric Soil Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Depth (inches):								
Remarks: Aquic and low chroma conditions visible in tractor tracks.								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)						Secondary Indicators (minimum of two required)		
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) swale	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): 4	Water Hydrology Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Water Table Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): 2 bgs						
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): surface						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photographs								
Remarks: Swale. Very moist, spongy soil. Possibly near-surface groundwater. Tractor tracks have filled with water. No downstream connection to WOUS.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 7/10/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT81
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. Carex atherodes		yes	OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Spartina pectinata		yes	FACW	<input type="checkbox"/>	2. Dominance Test is >50%
3. Polygonum amphibium			OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Phalaris arundinacea			FACW	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Eleocharis palustris			OBL	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Salix exigua		yes	FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7. Typha augustifolia		yes	OBL		
8. Carex vulpinoidea			OBL		
9. Juncus balticus			OBL		
10. Alisma plantago-aquatica			OBL		
11. Phragmites australis			FACW		
12. Carex lanuginosa			OBL		
	100	= Total Cover			
Woody Vine Stratum (Plot size: 30' r)				Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1.					
		= Total Cover			
% Bare Ground in Herb Stratum:					
Remarks: observed: ducks, muskrat					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT81

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:						Hydric Soil Present?		
Depth (inches):						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):	+24		Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Water Table Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth (inches):					
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):	surface				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photographs								
Remarks: Prairie pothole. No outlet. Non-jurisdictional								

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT82

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:						Hydric Soil Present?		
Depth (inches):						<input type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input checked="" type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):				Water Hydrology Present?		
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):						
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photographs								
Remarks: Prairie pothole No outlet. Mostly open water. Non-jurisdictional.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT83

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:			Hydric Soil Present?			<input type="checkbox"/> Yes <input type="checkbox"/> No		
Depth (inches):								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): +12	Water Hydrology Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):						
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photographs								
Remarks: Prairie pothole. No outlet. Non-jurisdictional.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh		Sampling Date: 7/10/2010	
Applicant/Owner: CPV		State: ND		Sampling Point: WT84	
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:			
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)		Slope (%):	
Subregion (LRR): Northern Great Plains		Lat:		Long:	
Soil Map Unit Name:		NW1 Classification:			
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)					
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>					
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.					
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No					
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
Remarks:					

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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' r)				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' r)				Hydrophytic Vegetation Indicators:		
1. Typha augustifolia		yes	OBL	<input checked="" type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation	
2. Eleocharis palustris			OBL	<input type="checkbox"/>	2. Dominance Test is >50%	
3. Phalaris anundinacea			FACW	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹	
4. Scirpus acutus			OBL	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
5. Beckmannia syzigachne			OBL	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)	
6. Carex lanuginosa			OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
7. Phragmites australis			OBL			
8. Carex atherodes		yes	OBL			
9.						
	100	= Total Cover				
Woody Vine Stratum (Plot size: 30' r)				Hydrophytic Vegetation Present?		
1.						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		= Total Cover				
% Bare Ground in Herb Stratum:						
Remarks: Wetland just north of the county road.						

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT84

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)		<input type="checkbox"/>					
Restrictive Layer (if present):								
Type:						Hydric Soil Present?		
Depth (inches):						<input type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/>			<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):				Water Hydrology Present?		
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):						
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photographs								
Remarks: Prairie pothole. Connects to another prairie pothole. Non-jurisdictional.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT85

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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 :	
<input type="checkbox"/>	Histosol (A1)	<input type="checkbox"/>	Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)	<input type="checkbox"/>	Sandy Redox (S5)	<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)	<input type="checkbox"/>	Stripped Matrix (S6)	<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input type="checkbox"/>	Hydrogen Sulfide (A4)	<input type="checkbox"/>	Loamy Mucky Mineral (F1)	<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)	<input type="checkbox"/>	Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/>	Depleted Matrix (F3)	<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)	<input type="checkbox"/>	Redox Dark Surface (F6)	<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Thick Dark Surface (A12)	<input type="checkbox"/>	Depleted Dark Surface (F7)	<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)	<input type="checkbox"/>	Redox Depressions (F8)	<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)		
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)				

Restrictive Layer (if present):		Hydric Soil Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Type:			
Depth (inches):			
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (minimum of two required)		
<input type="checkbox"/>	Surface Water (A1)	<input type="checkbox"/>	Salt Crust (B11)	<input type="checkbox"/>	Surface Soil Cracks (B6)
<input type="checkbox"/>	High Water Table (A2)	<input type="checkbox"/>	Aquatic Invertebrates (B13)	<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/>	Saturation (A3)	<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/>	Drainage Patterns (B10) prairie pothole
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/>	Dry-Season Water Table (C2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)	<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)	<input type="checkbox"/>	Presence of Reduced Iron (C4)	<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Algal Mat or Crust (B4)	<input type="checkbox"/>	Thin Muck Surface (C7)	<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/>	Other (Explain in Remarks)	<input type="checkbox"/>	FAC-Neutral Test (D5)
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)			<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)				

Field Observations:			Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Surface Water Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):		
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):		
Saturation Present? (includes capillary fringe)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 Remarks: Seems to drain to Wetland 38 via a culvert and then a swale. Open water. Prairie pothole. Non-jurisdictional.

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT86

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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 :	
<input type="checkbox"/>	Histosol (A1)	<input type="checkbox"/>	Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)	<input type="checkbox"/>	Sandy Redox (S5)	<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)	<input type="checkbox"/>	Stripped Matrix (S6)	<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input type="checkbox"/>	Hydrogen Sulfide (A4)	<input type="checkbox"/>	Loamy Mucky Mineral (F1)	<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)	<input type="checkbox"/>	Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/>	Depleted Matrix (F3)	<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)	<input type="checkbox"/>	Redox Dark Surface (F6)	<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Thick Dark Surface (A12)	<input type="checkbox"/>	Depleted Dark Surface (F7)	<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)	<input type="checkbox"/>	Redox Depressions (F8)	<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)		
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)				

Restrictive Layer (if present):		Hydric Soil Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Type:			
Depth (inches):			
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (minimum of two required)		
<input checked="" type="checkbox"/>	Surface Water (A1)	<input type="checkbox"/>	Salt Crust (B11)	<input type="checkbox"/>	Surface Soil Cracks (B6)
<input type="checkbox"/>	High Water Table (A2)	<input type="checkbox"/>	Aquatic Invertebrates (B13)	<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/>	Saturation (A3)	<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/>	Drainage Patterns (B10) closed depression
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/>	Dry-Season Water Table (C2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)	<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)	<input type="checkbox"/>	Presence of Reduced Iron (C4)	<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Algal Mat or Crust (B4)	<input type="checkbox"/>	Thin Muck Surface (C7)	<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/>	Other (Explain in Remarks)	<input type="checkbox"/>	FAC-Neutral Test (D5)
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)			<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)				

Field Observations:				Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): +12			
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): surface			

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photographs
 Remarks: Prairie pothole. Hydrologically connected to WET38 on the south side of the county road. Open water.

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT87

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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:		
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:						Hydric Soil Present?		
Depth (inches):						<input type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)						Secondary Indicators (minimum of two required)		
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches):		Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches):					
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Depth (inches):					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: aerial photographs								
Remarks: Prairie pothole. No outlet. Non-jurisdictional.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT88

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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:		
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:						Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Depth (inches):								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10)	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:					Water Hydrology Present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Surface Water Present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): 8					
Water Table Present?		<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):					
Saturation Present? (includes capillary fringe)		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): surface					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs								
Remarks: Prairie pothole. Non-jurisdictional. Some open water. Overflows would go into a swale, not a TNW.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT89

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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 :	
<input type="checkbox"/>	Histosol (A1)	<input type="checkbox"/>	Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)	<input type="checkbox"/>	Sandy Redox (S5)	<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)	<input type="checkbox"/>	Stripped Matrix (S6)	<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input type="checkbox"/>	Hydrogen Sulfide (A4)	<input type="checkbox"/>	Loamy Mucky Mineral (F1)	<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)	<input type="checkbox"/>	Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/>	Depleted Matrix (F3)	<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)	<input type="checkbox"/>	Redox Dark Surface (F6)	<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Thick Dark Surface (A12)	<input type="checkbox"/>	Depleted Dark Surface (F7)	<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)	<input type="checkbox"/>	Redox Depressions (F8)	<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)		
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)				

Restrictive Layer (if present):		Hydric Soil Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Type:			
Depth (inches):			
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (minimum of two required)		
<input checked="" type="checkbox"/>	Surface Water (A1)	<input type="checkbox"/>	Salt Crust (B11)	<input type="checkbox"/>	Surface Soil Cracks (B6)
<input type="checkbox"/>	High Water Table (A2)	<input type="checkbox"/>	Aquatic Invertebrates (B13)	<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/>	Saturation (A3)	<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/>	Drainage Patterns (B10)
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/>	Dry-Season Water Table (C2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)	<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)	<input type="checkbox"/>	Presence of Reduced Iron (C4)	<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Algal Mat or Crust (B4)	<input type="checkbox"/>	Thin Muck Surface (C7)	<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/>	Other (Explain in Remarks)	<input type="checkbox"/>	FAC-Neutral Test (D5)
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)			<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)				

Field Observations:				Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): +6			
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): surface			

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs
 Remarks: Small prairie pothole. Probably cut off by the road—another small pothole on the other side of the road. Two-thirds open water. No outlet. Non-jurisdictional

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT90

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:						Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Depth (inches):								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10)	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): +3		Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Water Table Present?		<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):					
Saturation Present? (includes capillary fringe)		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): surface					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs								
Remarks: Prairie pothole, probably cut off (or partially filled) when the adjacent road was built. Non-jurisdictional.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT91

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:						Hydric Soil Present?		
Depth (inches):						<input type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):			Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Water Table Present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):					
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs								
Remarks: Prairie pothole. No outlet. Non-jurisdictional.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT92

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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 :	
<input type="checkbox"/>	Histosol (A1)	<input type="checkbox"/>	Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)	<input type="checkbox"/>	Sandy Redox (S5)	<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)	<input type="checkbox"/>	Stripped Matrix (S6)	<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input type="checkbox"/>	Hydrogen Sulfide (A4)	<input type="checkbox"/>	Loamy Mucky Mineral (F1)	<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)	<input type="checkbox"/>	Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/>	Depleted Matrix (F3)	<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)	<input type="checkbox"/>	Redox Dark Surface (F6)	<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Thick Dark Surface (A12)	<input type="checkbox"/>	Depleted Dark Surface (F7)	<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)	<input type="checkbox"/>	Redox Depressions (F8)	<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)		
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)				

Restrictive Layer (if present):		Hydric Soil Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Type:			
Depth (inches):			
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (minimum of two required)		
<input checked="" type="checkbox"/>	Surface Water (A1)	<input type="checkbox"/>	Salt Crust (B11)	<input type="checkbox"/>	Surface Soil Cracks (B6)
<input type="checkbox"/>	High Water Table (A2)	<input type="checkbox"/>	Aquatic Invertebrates (B13)	<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/>	Saturation (A3)	<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/>	Drainage Patterns (B10)
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/>	Dry-Season Water Table (C2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)	<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)	<input type="checkbox"/>	Presence of Reduced Iron (C4)	<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Algal Mat or Crust (B4)	<input type="checkbox"/>	Thin Muck Surface (C7)	<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/>	Other (Explain in Remarks)	<input type="checkbox"/>	FAC-Neutral Test (D5)
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)			<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)				

Field Observations:				Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): +12			
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):			
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): surface			

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs
 Remarks: Lots of open water. Large prairie pothole. No outlet. Non-jurisdictional.

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT93

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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:		
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:						Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Depth (inches):								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?		<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):		Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Water Table Present?		<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):					
Saturation Present? (includes capillary fringe)		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): surface					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs								
Remarks: Prairie pothole (might be bisected by the road). Open water. Connects to a pothole upgradient to the NW.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT94

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:						Hydric Soil Present?		
Depth (inches):						<input type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):	+6		Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Water Table Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Depth (inches):					
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):	surface				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs								
Remarks: Prairie pothole. No outlet. Non-jurisdictional.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 7/11/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT95
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks:			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. <i>Spartina pectinata</i>		yes	FACW	<input checked="" type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. <i>Juncus balticus</i>		yes	OBL	<input type="checkbox"/>	2. Dominance Test is >50%
3. <i>Utricularia</i>			OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. <i>Lemna minor</i>			OBL	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. <i>Eleocharis palustris</i>		yes	OBL	<input type="checkbox"/>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. <i>Carex lanuginosa</i>		yes	OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7. <i>Carex atherodes</i>		yes	OBL		
8. <i>Calamagrostis inexpansa</i>			FACW		
9.					
			= Total Cover		
Woody Vine Stratum (Plot size: 30' r)				Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1.					
			= Total Cover		
% Bare Ground in Herb Stratum:					
Remarks: Upland—yellow sweetclover, snowberry, western wheatgrass, goldenrod. Largest population of northern leopard frogs that we've seen.					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT95

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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:		
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:			Hydric Soil Present?			<input type="checkbox"/> Yes <input type="checkbox"/> No		
Depth (inches):								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)						Secondary Indicators (minimum of two required)		
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10)	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): +12	Water Hydrology Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Water Table Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Depth (inches):						
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): surface						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs								
Remarks: Prairie pothole. No outlet. Non-jurisdictional. Lots of open water.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

Project/Site: Ashley Wind Energy		City/County: McIntosh	Sampling Date: 7/11/2010
Applicant/Owner: CPV		State: ND	Sampling Point: WT96
Investigator(s): M. Cummings/S. Yarbrough		Section, Township, Range:	
Landform (hillslope, terrace, etc.):		Local relief (concave, convex, none)	Slope (%):
Subregion (LRR): Northern Great Plains	Lat:	Long:	Datum:
Soil Map Unit Name:		NWI Classification:	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (if no, explain in Remarks)			
Are Vegetation <input checked="" type="checkbox"/> , Soil <input checked="" type="checkbox"/> , or Hydrology <input checked="" type="checkbox"/> significantly disturbed? Are "normal circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic? (If necessary, explain any answers in Remarks) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
SUMMARY OF FINDINGS—Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Is the Sampled Area within a Wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks: Highway construction likely disturbed this site.			

VEGETATION—Use scientific names of plants.

Tree Stratum (Plot size: 30' r)	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' r)				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' r)				Hydrophytic Vegetation Indicators:	
1. Eleocharis palustris		yes	OBL	<input type="checkbox"/>	1. Rapid Test for Hydrophytic Vegetation
2. Phalaris arundinacea		yes	FACW	<input type="checkbox"/>	2. Dominance Test is >50%
3. Sagittaria latifolia			OBL	<input type="checkbox"/>	3. Prevalence Index is ≤3.0 ¹
4. Salix exigua		yes	OBL	<input type="checkbox"/>	4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5.				<input type="checkbox"/>	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' r)				Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1.					
			= Total Cover		
% Bare Ground in Herb Stratum:					
Remarks: Located in and inside bend in the road.					

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT96

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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 :	
<input type="checkbox"/>	Histosol (A1)	<input type="checkbox"/>	Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)	<input type="checkbox"/>	Sandy Redox (S5)	<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)	<input type="checkbox"/>	Stripped Matrix (S6)	<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input type="checkbox"/>	Hydrogen Sulfide (A4)	<input type="checkbox"/>	Loamy Mucky Mineral (F1)	<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)	<input type="checkbox"/>	Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/>	Depleted Matrix (F3)	<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)	<input type="checkbox"/>	Redox Dark Surface (F6)	<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Thick Dark Surface (A12)	<input type="checkbox"/>	Depleted Dark Surface (F7)	<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)	<input type="checkbox"/>	Redox Depressions (F8)	<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)		
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)				

Restrictive Layer (if present):		Hydric Soil Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Type:			
Depth (inches):			
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (minimum of two required)		
<input checked="" type="checkbox"/>	Surface Water (A1)	<input type="checkbox"/>	Salt Crust (B11)	<input type="checkbox"/>	Surface Soil Cracks (B6)
<input type="checkbox"/>	High Water Table (A2)	<input type="checkbox"/>	Aquatic Invertebrates (B13)	<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/>	Saturation (A3)	<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/>	Drainage Patterns (B10) closed depression
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/>	Dry-Season Water Table (C2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)	<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)	<input type="checkbox"/>	Presence of Reduced Iron (C4)	<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Algal Mat or Crust (B4)	<input type="checkbox"/>	Thin Muck Surface (C7)	<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/>	Other (Explain in Remarks)	<input type="checkbox"/>	FAC-Neutral Test (D5)
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/>		<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)				

Field Observations:				Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): +36			
Water Table Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Depth (inches):			
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): surface			

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs
 Remarks: Prairie pothole. Lots of open water. No outlet. Non-jurisdictional.

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT97

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:			Hydric Soil Present?			<input type="checkbox"/> Yes <input type="checkbox"/> No		
Depth (inches):								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):	Water Hydrology Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):						
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs								
Remarks: Lots of standing water. No outlet. Non-jurisdictional. Connects to downgradient pothole by manmade channel.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT98

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

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 :	
<input type="checkbox"/>	Histosol (A1)	<input type="checkbox"/>	Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/>	Histic Epipedon (A2)	<input type="checkbox"/>	Sandy Redox (S5)	<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)
<input type="checkbox"/>	Black Histic (A3)	<input type="checkbox"/>	Stripped Matrix (S6)	<input type="checkbox"/>	Dark Surface (S7) (LRR G)
<input type="checkbox"/>	Hydrogen Sulfide (A4)	<input type="checkbox"/>	Loamy Mucky Mineral (F1)	<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)	<input type="checkbox"/>	Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	Reduced Vertic (F18)
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/>	Depleted Matrix (F3)	<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)	<input type="checkbox"/>	Redox Dark Surface (F6)	<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Thick Dark Surface (A12)	<input type="checkbox"/>	Depleted Dark Surface (F7)	<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)	<input type="checkbox"/>	Redox Depressions (F8)	<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)		
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)				

Restrictive Layer (if present):		Hydric Soil Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Type:			
Depth (inches):			
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (minimum of two required)		
<input type="checkbox"/>	Surface Water (A1)	<input type="checkbox"/>	Salt Crust (B11)	<input type="checkbox"/>	Surface Soil Cracks (B6)
<input type="checkbox"/>	High Water Table (A2)	<input type="checkbox"/>	Aquatic Invertebrates (B13)	<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/>	Saturation (A3)	<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/>	Drainage Patterns (B10) closed depression
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/>	Dry-Season Water Table (C2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)
<input type="checkbox"/>	Sediment Deposits (B2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)	<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Drift Deposits (B3)	<input type="checkbox"/>	Presence of Reduced Iron (C4)	<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Algal Mat or Crust (B4)	<input type="checkbox"/>	Thin Muck Surface (C7)	<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/>	Other (Explain in Remarks)	<input type="checkbox"/>	FAC-Neutral Test (D5)
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)			<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/>	Water-Stained Leaves (B9)				

Field Observations:			Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Surface Water Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):		
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):		
Saturation Present? (includes capillary fringe)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches):		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs
 Remarks: In farm field; prairie pothole

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT99

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		<input type="checkbox"/>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:						Hydric Soil Present?		
Depth (inches):						<input type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):	+12		Water Hydrology Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Water Table Present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):					
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Depth (inches):					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs								
Remarks: Prairie pothole. May outlet to downgradient pothole to the southeast. Non-jurisdictional.								

WETLAND DETERMINATION DATA FORM—Great Plains Region

SOIL

Sampling Point: WT100

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
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 :			
<input type="checkbox"/>	Histosol (A1)		<input type="checkbox"/>	Sandy Gleyed Matrix (S4)		<input type="checkbox"/>	1 cm Muck (A9) (LRR I, J)	
<input type="checkbox"/>	Histic Epipedon (A2)		<input type="checkbox"/>	Sandy Redox (S5)		<input type="checkbox"/>	Coast Prairie Redox A16) (LRR F, G, H)	
<input type="checkbox"/>	Black Histic (A3)		<input type="checkbox"/>	Stripped Matrix (S6)		<input type="checkbox"/>	Dark Surface (S7) (LRR G)	
<input type="checkbox"/>	Hydrogen Sulfide (A4)		<input type="checkbox"/>	Loamy Mucky Mineral (F1)		<input type="checkbox"/>	High Plains Depressions (F16) (LRR H outside of MLRA 72 and 73)	
<input type="checkbox"/>	Stratified Layers (A5) (LRR F)		<input type="checkbox"/>	Loamy Gleyed Matrix (F2)		<input type="checkbox"/>	Reduced Vertic (F18)	
<input type="checkbox"/>	1 cm Muck (A9) (LRR F, G, H)		<input type="checkbox"/>	Depleted Matrix (F3)		<input type="checkbox"/>	Red Parent Material (TF2)	
<input type="checkbox"/>	Depleted Below Dark Surface (A11)		<input type="checkbox"/>	Redox Dark Surface (F6)		<input type="checkbox"/>	Very Shallow Dark Surface (TF12)	
<input type="checkbox"/>	Thick Dark Surface (A12)		<input type="checkbox"/>	Depleted Dark Surface (F7)		<input type="checkbox"/>	Other (Explain in Remarks)	
<input type="checkbox"/>	Sandy Mucky Mineral (S1)		<input type="checkbox"/>	Redox Depressions (F8)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/>	2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		<input type="checkbox"/>	High Plains Depressions (F16) (MLRA 72 and 73 of LRR H)				
<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR F)							
Restrictive Layer (if present):								
Type:			Hydric Soil Present?			<input type="checkbox"/> Yes <input type="checkbox"/> No		
Depth (inches):								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/>	Surface Water (A1)		<input type="checkbox"/>	Salt Crust (B11)		<input type="checkbox"/>	Surface Soil Cracks (B6)	
<input type="checkbox"/>	High Water Table (A2)		<input type="checkbox"/>	Aquatic Invertebrates (B13)		<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/>	Saturation (A3)		<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)		<input checked="" type="checkbox"/>	Drainage Patterns (B10) closed depression	
<input type="checkbox"/>	Water Marks (B1)		<input type="checkbox"/>	Dry-Season Water Table (C2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where tilled)	
<input type="checkbox"/>	Sediment Deposits (B2)		<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots (C3) (where not tilled)		<input type="checkbox"/>	Crayfish Burrows (C8)	
<input type="checkbox"/>	Drift Deposits (B3)		<input type="checkbox"/>	Presence of Reduced Iron (C4)		<input checked="" type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/>	Algal Mat or Crust (B4)		<input type="checkbox"/>	Thin Muck Surface (C7)		<input type="checkbox"/>	Geomorphic Position (D2)	
<input type="checkbox"/>	Iron Deposits (B5)		<input type="checkbox"/>	Other (Explain in Remarks)		<input type="checkbox"/>	FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)					<input type="checkbox"/>	Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/>	Water-Stained Leaves (B9)							
Field Observations:								
Surface Water Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): +24	Water Hydrology Present?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Water Table Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Depth (inches):						
Saturation Present? (includes capillary fringe)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Depth (inches): surface						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial photographs								
Remarks: Prairie pothole. No outlet. Non-jurisdictional.								

APPENDIX B

Site Photographs



Photo 1: Soil test pit UP2 with PEM wetland WET2 in background.



Photo 2: Soil test pit UP2.



Photo 3: PEM wetland WET72.



Photo 4: Soil test pit UP15 at PSS wetland WET15.



Photo 5: Soil test pit UP15 at PSS wetland WET15.



Photo 6: Soil test pit WT15 at PSS wetland WET15.



Photo 7: PFO wetland WET79.



Photo 8: PEM wetland WET10.



Photo 9: Soil test pit WT10 at PEM wetland WET10.



Photo 10: Soil test pit UP10 at PEM wetland WET10



Photo 11: PEM wetland WET83.



Photo 12: PEM wetland WET95.



Photo 13: PEM wetland WET88.



Photo 14: PEM wetland WET42.



Photo 15: PEM wetland WET84.



Photo 16: PEM wetland WET36.



Photo 17: Location of Turbine B1 as seen from the east.