Appendix C

Wetland Delineation Report



AQUATIC RESOURCES DELINEATION REPORT FOR THE TATANKA RIDGE WIND PROJECT, DEUEL COUNTY, SOUTH DAKOTA

JANUARY 2019

PREPARED FOR

Buffalo Ridge III, LLC

PREPARED BY

SWCA Environmental Consultants

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1 INTRODUCTION

Buffalo Ridge III, LLC, contracted SWCA Environmental Consultants (SWCA) to conduct an aquatic resources delineation (delineation) for the Tatanka Ridge Wind Project (Project) in Deuel County, South Dakota (see overview map in Appendix A). SWCA identified and delineated aquatic resources within the survey area provided by Buffalo Ridge III, LLC, that could qualify as waters of the U.S. (WUS) and be subject to permitting by the U.S. Army Corps of Engineers (USACE) under Sections 404 and 401 of the Clean Water Act (CWA).

The Project is located approximately 5 miles west of the South Dakota/Minnesota border, and directly north of the town of Toronto, South Dakota. The proposed Project will have a nameplate capacity of up to 99 megawatts, consisting of wind turbines and associated infrastructure such as access roads, electrical collection system, substation, operations and maintenance building, and a permanent meteorological tower.

This report presents the results of the delineation fieldwork SWCA conducted between July 29 and November 1, 2018, to facilitate sighting and permitting for the Project. This report includes the following items.

- Descriptions of the aquatic resources delineated during the field surveys.
- Maps illustrating the extent of aquatic resources potentially requiring Section 404 permitting within the survey area and boundaries of wetlands and non-wetland waterbodies (reservoirs, ponds, and streams) with ordinary high-water marks (OHWMs) (Appendix A).
- USACE datapoint datasheets (Appendix B) and photographs (Appendix C) for the aquatic resources delineated during the survey.
- Geographic information system (GIS) shapefiles of the delineated aquatic resources (Appendix C).

The project survey area included the following proposed infrastructure and buffers:

- 200-foot (ft) buffer around access roads and overhead and underground transmission lines
- 500 ft buffer around turbines;
- 40 acre blocks around staging areas;
- 100 ft buffer around operation and maintenance and laydown areas; and
- Block survey areas, including:
 - o Sections 6 and 7, Township (T) 113 North (N), Range (R) 48 West (W)
 - o Sections 34 and 25, T114N, R49W
 - o Southeast ¼ Section 9, T113N, R49W

1.1 Environmental Setting

The survey area is within the Rolling Till Prairie major land resource area (MLRA) 102A (Natural Resources Conservation Service [NRCS] 2018a). Most of this area is in the Western Lake Section of the Central Lowland Province of the Interior Plains. The center of the Prairie Coteau, in northeastern South Dakota, is in the Dissected Till Plains section of the same province and division. This MLRA is an area of nearly level to rolling topography that has many depressions and ill-defined drainages. "Prairie pothole" lakes and ponds are common.

The average annual precipitation in this area is 19 to 29 inches (485 to 735 millimeters). Half or more of the precipitation falls during the growing season, which is typically 110 to 180 days in April through September. Rainfall typically occurs as high-intensity, convective thunderstorms during the summer. Precipitation in winter occurs mostly as snow. The average annual temperature is 38 to 45 degrees Fahrenheit (4 to 7 degrees Celsius). The freeze-free period averages about 155 days and ranges from 140 to 175 days. In the western part of the MLRA, rainfall is less abundant and is not always adequate for full maturation of crops (NRCS 2006).

The survey area is primarily comprised of cultivated fields and tame pasture (grazing unit dominated by non-native forage species). Tile drains and ditches to reduce water in the cultivated fields occur throughout the survey area. The tile drains and ditches affect hydrology in a number of ways, including ponding water around tile drain inlets (the drain prevents water from ponding long enough to create hydric soils or hydrophytic vegetation) and redirecting water flow to tile drain outlets and ditches (including creating OHWMs along these flow areas).

1.2 Regulatory Background

Pursuant to Sections 404 and 401 of the CWA, the USACE regulates the discharge of dredge and/or fill material into WUS. Section 404 requires that any entity proposing an activity that would discharge such materials into a WUS must obtain a permit from the USACE. Section 401 requires states to review projects and federal permits to ensure they will not violate South Dakota surface water quality standards.

Designation as a WUS applies to the jurisdictional limits of USACE authority under the CWA and typically includes traditional navigable waters, interstate waters, and wetlands; impoundments, tributaries, and wetlands adjacent to those waters; and territorial seas. Most rivers, creeks, streams, arroyos, lakes, special aquatic sites, and their tributaries are typically designated as WUS. Wetlands are the most common special aquatic site and are defined as "areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (USACE 1987:9). To be classified as a wetland under federal definition, an area must meet the following three criteria under normal circumstances: 1) have a predominance of hydrophytic vegetation, 2) contain soils that are characteristic of frequent saturation (i.e., hydric soils), and 3) have the presence of hydrology showing regular inundation or saturation (USACE 1987). The OHWM is a defining element for identifying the lateral limits of waterbodies lacking adjacent wetlands and typically represents the outer limits of potential USACE jurisdiction.

SWCA conducted the delineations to assist the USACE determining jurisdiction and to support Section 404 and 401 permitting. The USACE has final and legal authority in determining the presence of jurisdictional WUS and the extent of their boundaries. The South Dakota Department of Environment & Natural Resources has the responsibility of reviewing and approving Section 401 Water Quality Certification for activities occurring outside of Indian Country within South Dakota.

2 METHODS

SWCA identified and delineated aquatic resources within the survey area (as described in Section 1 and shown on the overview map in Appendix A) using a combination of desktop review and field surveys.

2.1 Desktop Review

SWCA completed a desktop review of the survey area before conducting field surveys using GIS analysis. The desktop review included examining existing data from U.S. Geological Survey (USGS) topographic quadrangle maps, the National Wetlands Inventory (NWI) database, the National Hydrography Dataset (NHD), color infrared imagery, and historic and current aerial photographs of the survey area. The NWI is a U.S. Fish and Wildlife Service (USFWS) database that identifies and categorizes wetland areas based primarily on aerial imagery interpretation (USFWS 2018). Maintained by the USGS, the NHD identifies surface water systems in the United States, including lakes, streams, rivers, and canals (USGS 2018). SWCA used NRCS soil survey data (NRCS 2018b) to review area soils. This desktop review identified locations of potential aquatic resources for investigation during the field surveys.

2.2 Field Surveys

SWCA wetland biologists conducted pedestrian delineations for aquatic resources from July 30 through August 6, October 5 through 10, and October 28 through 31, 2018. The field delineations were conducted to verify the results of the desktop review and to delineate all aquatic resources in the survey area that are potential WUS.

SWCA conducted the delineations in accordance with the *Corps of Engineers Wetland Delineation Manual* (the Manual) (USACE 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region* (Version 2.0) (the Supplement) (USACE 2010).

A global positioning system (GPS) unit with sub-meter accuracy was used in the field to map the spatial extent of features, geographically reference datapoints, and delineate boundaries during the field surveys. GIS was used in the office to analyze the delineated features, calculate areas, and generate report maps. Please note that all data recorded using the GPS unit and displayed in the maps are for review purposes only and do not represent a professional civil survey; however, the recorded accuracy was less than 1 meter.

2.2.1 Wetlands

All potential wetlands encountered during the field surveys were investigated to determine if a wetland was present. If potential wetland characteristics were observed in an area, the wetland biologist recorded a datapoint(s) to determine the wetland status of the area. Additionally, the wetland biologist assessed all NWI polygons mapped for the survey area to determine if any of them met USACE wetland criteria. Representative photographs or datapoints were taken in these upland areas to document the lack of wetland criteria.

In the areas surveyed, wetland boundaries were delineated where all three fundamental characteristics of hydrophytic vegetation, hydric soils, and wetland hydrology were present. Wetlands that satisfy all three criteria may be subject to regulation by the USACE under Section 404 of the CWA.

The plant species identified, their percent cover, and their indicator status according to Lichvar et al. (2016) were used to indicate the presence of hydrophytic vegetation. To determine if hydric soils were present, SWCA's biologist extracted a soil profile to a sufficient depth (generally 20 inches) to document the presence or absence of all applicable hydric soil indicators. Inundation, saturation, and other physical indicators suggesting the presence of water were used to determine wetland hydrology at each site.

Wetlands were classified using the Cowardin classification system (Cowardin et al. 1979). The five principal systems are marine, estuarine, riverine, lacustrine, and palustrine. The survey area features riverine and palustrine systems.

The riverine system includes all wetlands and deep-water habitats contained within a channel except those wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens or that have habitats with ocean-derived salinities exceeding 0.5 part per thousand (‰) (Cowardin et al. 1979).

The palustrine system includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens and all such wetlands that exist in tidal areas where salinity resulting from ocean-derived salts is below 0.5% (Cowardin et al. 1979). The palustrine system also includes wetlands lacking such vegetation but exhibiting the following four characteristics: 1) area less than 8 hectares (20 acres); 2) a lack of active wave-formed or bedrock shoreline features; 3) water depth in the deepest part of basin less than 2 meters at low water; and 4) salinity from ocean-derived salts of less than 0.5%.

In certain situations, normal seasonal or annual variation in environmental conditions can lead to the development of "problem areas" in which wetland vegetation, hydric soils, or wetland hydrology may not be readily identifiable. These problem areas may require additional investigation to determine the presence or absence of wetland indicators. In other situations, recent human activities or natural events can create "atypical situations" in which positive indicators of wetland hydrology, hydric soils, and hydrophytic vegetation are absent or unreliable. As with problem areas, these situations may require additional investigation to determine if a wetland is present.

SWCA recorded data on USACE Midwest regional wetland determination datasheets to verify the presence and extent of wetlands (see Appendix B). Details recorded at each datapoint consisted of vegetation within prescribed sampling plots, soil characteristics, and hydrology information. The biologist recorded overview photographs of the sample area and detailed photographs of vegetation, soils, and hydrology at each datapoint (Appendix C). Datapoints that exhibited positive indicators of hydrophytic vegetation, hydric soils, and wetland hydrology were classified as wetlands. Datapoints that did not contain wetland indicators for all three criteria were classified as uplands.

2.2.1.1 VEGETATION

At each datapoint, SWCA recorded the binomial scientific name and absolute percent ground cover of all vascular plants within prescribed plot sizes for each vegetative stratum. The Supplement (USACE 2010) defines the tree stratum as a woody-stemmed plant with a trunk diameter at breast height (DBH) of equal to or greater than 3 inches, regardless of height; the sapling and shrub stratum as consisting of woody-stemmed plants with a trunk DBH of less than 3 inches, regardless of height; the herbaceous stratum as including all non-woody-stemmed plants, regardless of height; and the woody vine stratum as including all woody-stemmed vines, regardless of diameter. Typical plot size was a 30-foot radius for the tree stratum, a 15-foot radius for the sapling and shrub strata, a 5-foot radius for the herbaceous stratum, and a 30-foot radius for the woody vine stratum. However, in some instances, the biologist changed plot sizes to conform to the actual wetland size or shape. The wetland indicator status of each plant species was determined using the 2016 national wetland plant list (Lichvar et al. 2016), which divides plant species

into five categories that reflect the range of estimated probabilities of a species existing in a wetland versus an upland. The five categories of wetland indicator statuses are as follows.

- Obligate (OBL): almost always occurs in wetlands
- Facultative Wetland (FACW): usually occurs in wetlands, but may occur in non-wetlands
- Facultative (FAC): occurs in wetlands or non-wetlands
- Facultative Upland (FACU): usually occurs in non-wetlands, but may occur in wetlands
- Upland (UPL): almost never occurs in wetlands

Any plant community with greater than 50% dominant hydrophytes (OBL, FACW, and FAC) across all strata was determined to meet the USACE criteria of a hydrophytic community. In cases where disturbance had created problematic hydrophytic vegetation, visual observations of other hydrophytic vegetation indicators and site conditions, such as livestock grazing or presence of human-made features, were evaluated to clarify wetland boundaries.

2.2.1.2 **SOILS**

Hydric soil determinations were made according to criteria listed in the Manual (USACE 1987), the Supplement (USACE 2010), and *Field Indicators of Hydric Soils in the United States: A Guide for Identifying and Delineating Hydric Soils, Version 7.0* (U.S. Department of Agriculture 2010). The wetland biologist excavated soil pits to a depth of at least 20 inches and described each soil profile by horizon. Each horizon was evaluated for soil color; thickness; color, abundance, and contrast of redoximorphic features (mottles); and soil texture. Munsell soil color charts were used to determine the color of the soil matrix and redoximorphic features. The "feel" or "ribbon" test was used to determine soil texture. The soil profile was studied for the hydric soil indicators listed in the Manual (USACE 1987) and the Supplement (USACE 2010). If the soil profile displayed at least one primary or two secondary hydric soil indicators, a positive hydric soil determination was made.

Some soils that meet the hydric soil definition may not exhibit any indicators. These problematic hydric soils may lack indicators because of the color of the parent material from which the soils develop, because site conditions may inhibit the development of redoximorphic features, or because not enough time has passed to develop hydric soil indicators (USACE 2010). For areas with problematic soils, hydric soil conditions were assumed when there was a dominant hydrophytic plant community and the area exhibited wetland hydrology indicators, as listed in the Supplement (USACE 2010).

2.2.1.3 HYDROLOGY

Wetland hydrology was primarily determined in the field using the hydrology indicators detailed in the Manual (USACE 1987) and the Supplement (USACE 2010). To determine whether wetland hydrology was present at a datapoint, the SWCA biologist considered the frequency and duration of inundation; used visual observation of saturation in the upper 12 inches of the soil profile; and used the presence of other primary wetland hydrology indicators, such as oxidized root channels, water-stained leaves, surface soil cracks, water marks (nonriverine), sediment deposits (nonriverine), or the presence of biotic crusts. Secondary indicators used to determine wetland hydrology consisted of drainage patterns, the presence of a dry-season water table, or saturation visible on aerial imagery. If the area contained one or more primary hydrology indicators or two or more secondary hydrology indicators, a positive hydrology determination was made.

2.2.2 Waterbodies

All NHD flowlines and other non-wetland waterbodies (e.g., streams, rivers, canals, and ponds) encountered during the field surveys were assessed for the presence of an OHWM, which was indicated by the presence of distinguishing physical characteristics such as a clear, natural line impressed on the bank; shelving; changes in the character of soil; the absence of terrestrial vegetation; or the presence of litter and debris. Channel characteristics such as OHWM indicators, width, bank slope and height, substrate, and channel condition were recorded for each stream. Swales and erosional features without OHWMs were not delineated.

Streams with OHWMs were classified as perennial, intermittent, or ephemeral based on field observations of perceived flow regimes. A perennial stream features flowing water year-round during a typical year. The water table of a perennial stream is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow, and runoff from rainfall is a supplemental source of water for stream flow. An intermittent stream features flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not feature flowing water. Runoff from rainfall is a supplemental source of water for stream flow. An ephemeral stream features flowing water only during and shortly after precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for an ephemeral stream. Runoff from rainfall is the primary source of water for stream flow.

3 RESULTS

SWCA delineated 92 wetlands and one waterbody in the survey area. The survey area, the delineated aquatic features, and the datapoint locations are illustrated in the maps in Appendix A; datapoint datasheets are provided in Appendix B; and photographs and additional information are provided on the compact disk provided as Appendix C.

3.1 Wetlands

The wetlands delineated during the field surveys, their acreage, and the datapoint(s) associated with each delineated wetland are summarized in Table 1. The majority of delineated wetlands are palustrine emergent (PEM) as defined in Cowardin et al. (1979). Some of these wetlands extend beyond the survey area boundary; only the acreages, wetland classes, and datapoints for the portions of these wetlands that lie within the survey area boundary are summarized in Table 1. The wetland feature identification numbers listed in Table 1 correspond to the wetland feature identification numbers shown on the maps in Appendix A.

Table 1. Acreages and Associated Datapoints of Wetlands Delineated in the Study Area

Wetland Name	Wetland Acreage (acres)	Field Observed Wetland Class*	Wetland Datapoint(s)	Upland Datapoint(s)
WET001 A	0.651865	PEM	DP001	DP002
WET002	0.689831	PEM	DP001	DP002
WET004	0.594346	PEM	DP007	DP008
WET006 A & B	6.57495	PEM	DP011	DP012
WET007	0.101193	PEM	DP015	DP016
WET008	0.105337	PEM	DP015	DP016

Wetland Field Observed Wetland Name Acreage Wetland Class*		Wetland Datapoint(s)	Upland Datapoint(s)	
WET009	0.021434	PEM	DP017	DP018
WET010	0.039063	PEM	DP019	DP020
WET011	0.100304	PEM	DP021	DP022
WET012 A & B	0.308194	PEM	DP023	DP024
WET013	5.510528	PEM	DP025	DP026
WET014	0.007968	PEM	DP027	DP028
WET015 A & B	1.143198	PEM	DP029	DP030
WET016	7.886117	PEM	DP031	DP032
WET017	1.074475	PEM	DP033	DP034
WET018	27.473046	PEM	DP035	DP036
WET019	0.108671	PEM	DP037	DP038
WET020 A & B	0.96885	PEM	DP039	DP040
WET021 B	0.146287	PEM	DP041	DP042
WET022 A & B	5.610008	PEM	DP043	DP044
WET023	0.048418	PEM	DP045	DP046
WET024	0.083392	PEM	DP047	DP048
WET025	0.381823	PEM	DP049	DP050
WET026	6.129868	PEM	DP051	DP052
WET027	0.892419	PEM	DP053	DP054
WET028	3.346795	PEM	DP055	DP056
WET029	0.137279	PEM	DP057	DP058
WET030	0.209082	PSS	DP059	DP060
WET101 A & B	0.37857	PEM	DP101	DP102
WET102 A, B, C, & D	1.158201	PEM	DP103	DP104
WET103 A & B	0.421505	PEM	DP105	DP106
WET104 A, B, & C	5.229635	PEM	DP107	DP108
WET105 A, B, & C	5.366914	PEM	DP109	DP110
WET106	0.299049	PEM	DP111	DP112
WET107	0.152879	PEM	DP113	DP114
WET108 A & B	2.309421	PEM	DP115	DP116
WET109	0.314359	PEM	DP117	DP118
WET110 A & B	0.963183	PEM	DP119	DP120
WET111 A & B	1.041629	PEM	DP121	DP122
WET112	0.425432	PEM	DP123	DP124
WET113 A & B	0.458713	PEM	DP125	DP126
WET114	0.73033	PEM	DP127	DP128
WET115	0.247635	PEM	DP127	DP128
WET116	0.238247	PEM	DP131	DP132
WET117 A, B, C, D, E, F, G, & H	2.266961	PEM	DP133	DP134
WET118	0.584801	PEM	DP135	DP136
WET119 A & B	0.482719	PEM	DP137	DP138
WET120	56.098672	PEM	DP041, DP061	DP042, DP06

Wetland Name Acreage Wetland Cla		Field Observed Wetland Class*	Wetland Datapoint(s)	Upland Datapoint(s)
WET121	0.278341	PEM	DP061	DP062
WET122	2.980743	PEM	DP041	DP042
WET123	0.047886	PEM	DP041	DP042
WET124	0.645507	PEM	DP041	DP042
WET125 A, B, & C	0.763011	PEM	DP041	DP042
WET127	0.884926	PEM	DP033	DP034
WET128	0.53409	PEM	DP033	DP034
WET129	0.431078	PEM	DP033	DP034
WET130	0.464512	PEM	DP039	DP040
WET131	7.770155	PEM	DP039	DP040
WET133	15.89773	PEM	DP035	DP036
WET134	0.440809	PEM	DP037	DP038
WET137	30.166541	PEM	DP145	DP146
WET138	0.540385	PEM	DP143	DP144
WET139	4.693426	PEM	DP143	DP144
WET141	69.876104	PEM	DP009, DP013	DP010, DP014
WET142	9.861895	PEM	DP007, DP017	DP008, DP018
WET144	0.233367	PEM	DP001	DP002
WET145	42.668754	PEM	DP003, DP005	DP004, DP006
WET146	0.805326	PEM	DP003, DP005	DP004, DP006
WET147	5.162234	PEM	DP003, DP005	DP004, DP006
WET148	0.186715	PEM	DP001	DP002
WET149	0.363062	PEM	DP141	DP142
WET150	0.475354	PEM	DP037	DP038
WET151	0.630666	PEM	DP039	DP040
WET152 A & B	0.032186	PEM	DP131	DP132
WET153	0.170975	PEM	DP131	DP132
WET154	0.034666	PEM	DP131	DP132
WET155	0.973598	PEM	DP127	DP128
WET156	0.195279	PEM	DP047	DP048
WET157	0.294391	PEM	DP141	DP142
WET158	0.751186	PEM	DP001	DP002
WET159	0.130907	PEM	DP146	DP147
WET160	0.819389	PEM	DP146	DP147
WET161	0.059127	PEM	DP146	DP147
WET162	0.514785	PEM	DP146	DP147
WET163	0.196313	PEM	DP 150	DP151
WET164	1.101907	PEM	DP148	DP149
WET165 A & B	2.727127	PEM	DP150	DP151
WET166	0.104714	PEM	DP150	DP151
WET167 B	0.034872	PEM	DP152	DP153
WET168 A & B	0.018934	PEM	DP152	DP153
WET169 A & B	0.208722	PEM	DP152	DP153

Wetland Name	Wetland Acreage (acres)	Field Observed Wetland Class*	Wetland Datapoint(s)	Upland Datapoint(s)
WET170	0.176111	PEM	DP041	DP042

^{*} PEM = palustrine emergent

Additional datapoint information associated with the datasheets in Appendix B is provided in Table 2, including location, soil map unit, and the NWI polygon that is intersected with the point, if applicable.

Table 2. Additional Datapoint Information

Datapoint Number	Latitude	Longitude	Section	Township, Range	NWI Polygon	Soil Map Unit
DP001	44.63052	-96.703408	4	T113N, R49W	None	McIntosh-Badger silty clay loams
DP002	44.630163	-96.703649	4	T113N, R49W	None	McIntosh-Badger silty clay loams
DP003	44.630652	-96.700284	34	T114N, R49W	None	McIntosh-Badger silty clay loams
DP004	44.630655	-96.700401	34	T114N, R49W	None	McIntosh-Badger silty clay loams
DP005	44.632901	-96.693215	34	T114N, R49W	PEM1C	McIntosh-Lamoure silty clay loams
DP006	44.633055	-96.693248	34	T114N, R49W	None	McIntosh-Lamoure silty clay loams
DP007	44.633156	-96.662917	35	T114N, R49W	PEM1C	Lamoure-Rauville silty clay loams, channeled
DP008	44.633024	-96.662864	35	T114N, R49W	PEM1C	Kranzburg-Brookings silty clay loams
DP011	44.638821	-96.682735	35	T114N, R49W	None	Vienna-Brookings complex
DP012	44.638675	-96.682735	35	T114N, R49W	None	Kranzburg-Brookings silty clay loams
DP013	44.634391	-96.680215	35	T114N, R49W	PEM1A	Southam silty clay loam
DP014	44.634276	-96.679717	35	T114N, R49W	None	Hamerly-Badger complex
DP015	44.630481	-96.677774	2	T113N, R49W	None	Parnell silty clay loam
DP016	44.630481	-96.677672	2	T113N, R49W	None	Parnell silty clay loam
DP017	44.630692	-96.668145	35	T114N, R49W	PEM1C	Lamoure-Rauville silty clay loams, channeled
DP018	44.630633	-96.668104	35	T114N, R49W	None	Lamoure-Rauville silty clay loams, channeled
DP019	44.622978	-96.66266	1	T113N, R49W	None	McIntosh-Lamoure silty clay loams

Datapoint Number	Latitude	Longitude	Section	Township, Range	NWI Polygon	Soil Map Unit
DP020	44.62293	-96.662708	2	T113N, R49W	None	McIntosh-Lamoure silty clay loams
DP021	44.621352	-96.66266	1	T113N, R49W	None	McIntosh-Lamoure silty clay loams
DP022	44.621649	-96.662633	1	T113N, R49W	None	Vienna-Brookings complex
DP023	44.618979	-96.66271	2	T113N, R49W	None	Lamoure-Rauville silty clay loams, channeled
DP024	44.619259	-96.662681	1	T113N, R49W	None	Vienna-Brookings complex
DP025	44.610628	-96.663349	11	T113N, R49W	None	Parnell silty clay loam
DP026	44.610393	-96.663045	11	T113N, R49W	None	McIntosh-Badger silty clay loams
DP029	44.616402	-96.613423	5	T113N, R48W	None	Barnes-Svea-Buse loams
DP030	44.616452	-96.613508	5	T113N, R48W	None	Barnes-Svea-Buse loams
DP031	44.621827	-96.611002	5	T113N, R48W	None	Lowe loam
DP032	44.622912	-96.608999	5	T113N, R48W	None	Lamoure silty clay loam
DP033	44.629103	-96.631044	6	T113N, R48W	PEM1C	Parnell-Vallers complex
DP034	44.629129	-96.63123	6	T113N, R48W	None	Singsaas-Waubay silty clay loams
DP035	44.623422	-96.629531	6	T113N, R48W	PEM1C	Singsaas-Waubay silty clay loams
DP036	44.623304	-96.629436	6	T113N, R48W	PEM1C	Hamerly-Badger complex
DP037	44.621786	-96.62973	6	T113N, R48W	None	Hamerly-Badger complex
DP038	44.621843	-96.629712	6	T113N, R48W	PEM1A	Hamerly-Badger complex
DP039	44.629565	-96.622261	5	T113N, R48W	None	Singsaas-Waubay silty clay loams
DP040	44.629644	-96.622289	6	T113N, R48W	None	Singsaas-Waubay silty clay loams
DP041	44.616347	-96.623248	6	T113N, R48W	None	Buse-Lamoure, channeled, complex
DP042	44.616298	-96.623271	6	T113N, R48W	None	Buse-Lamoure, channeled, complex
DP043	44.616211	-96.633588	7	T113N, R48W	None	Renshaw-Sioux complex
DP044	44.616171	-96.633599	7	T113N, R48W	None	Renshaw-Sioux complex

Datapoint Number	Latitude	Longitude	Section	Township, Range	NWI Polygon	Soil Map Unit
DP045	44.612552	-96.64245	7	T113N, R48W	None	McIntosh-Lamoure silty clay loams
DP046	44.612423	-96.642479	7	T113N, R48W	None	McIntosh-Lamoure silty clay loams
DP047	44.604171	-96.641937	7	T113N, R48W	None	Barnes-Svea loams
DP048	44.604141	-96.642079	7	T113N, R48W	None	Barnes-Svea loams
DP049	44.604851	-96.644859	12	T113N, R49W	None	Hamerly-Badger complex
DP050	44.604863	-96.64479	12	T113N, R49W	None	Hamerly-Badger complex
DP051	44.60347	-96.647328	12	T113N, R49W	None	Vienna-Brookings complex
DP052	44.603568	-96.647159	12	T113N, R49W	None	Vienna-Brookings complex
DP053	44.602576	-96.643	12	T113N, R49W	None	Lamoure-Rauville silty clay loams, channeled
DP054	44.602531	-96.642899	12	T113N, R49W	None	Barnes-Svea-Buse loams
DP055	44.601707	-96.640757	7	T113N, R48W	None	Vienna-Brookings complex
DP056	44.601721	-96.640582	7	T113N, R48W	None	Vienna-Brookings complex
DP057	44.601716	-96.640376	7	T113N, R48W	None	McIntosh-Badger silty clay loams
DP058	44.601723	-96.640523	7	T113N, R48W	None	Vienna-Brookings complex
DP059	44.601477	-96.639694	18	T113N, R48W	PEM1C	McIntosh-Badger silty clay loams
DP060	44.601568	-96.63967	18	T113N, R48W	None	McIntosh-Badger silty clay loams
DP061	44.601865	-96.632233	7	T113N, R48W	PEM1C	Lamoure-Rauville silty clay loams, channeled
DP062	44.601758	-96.632211	7	T113N, R48W	None	Lamoure-Rauville silty clay loams, channeled
DP101	44.572278	-96.581325	27	T113N, R48W	None	Buse-Lamoure, channeled, complex
DP102	44.572288	-96.58131	27	T113N, R48W	None	Buse-Lamoure, channeled, complex
DP103	44.57837	-96.581558	22	T113N, R48W	None	Buse-Lamoure, channeled, complex
DP104	44.578219	-96.581539	22	T113N, R48W	None	Buse-Lamoure, channeled, complex

Datapoint Number	Latitude	Longitude	Section	Township, Range	NWI Polygon	Soil Map Unit
DP105	44.581752	-96.58167	22	T113N, R48W	None	Lamoure-Rauville silty clay loams, channeled
DP106	44.581607	-96.581798	21	T113N, R48W	None	Lamoure-Rauville silty clay loams, channeled
DP107	44.58727	-96.58126	22	T113N, R48W	None	Lamoure-Rauville silty clay loams, channeled
DP108	44.587299	-96.58124	15	T113N, R48W	None	Lamoure-Rauville silty clay loams, channeled
DP109	44.587407	-96.581291	15	T113N, R48W	None	Lamoure-Rauville silty clay loams, channeled
DP110	44.587379	-96.581307	15	T113N, R48W	None	Lamoure-Rauville silty clay loams, channeled
DP111	44.589585	-96.581638	15	T113N, R48W	None	Lamoure silty clay loam
DP112	44.589585	-96.581664	15	T113N, R48W	None	Lamoure silty clay loam
DP113	44.594691	-96.58186	15	T113N, R48W	PEM1Cx	Hamerly-Badger complex
DP114	44.594671	-96.581803	15	T113N, R48W	None	Hamerly-Badger complex
DP115	44.600951	-96.581933	16	T113N, R48W	None	Lamoure-Rauville silty clay loams, channeled
DP116	44.600939	-96.581848	15	T113N, R48W	None	Lowe loam
DP117	44.601841	-96.593715	16	T113N, R48W	None	Southam silty clay loam
DP118	44.60189	-96.593724	9	T113N, R48W	None	Southam silty clay loam
DP119	44.601859	-96.602594	17	T113N, R48W	None	Parnell silty clay loam
DP120	44.602015	-96.602825	8	T113N, R48W	None	Parnell silty clay loam
DP121	44.60186	-96.612044	17	T113N, R48W	None	Hamerly-Badger complex
DP122	44.601899	-96.61206	8	T113N, R48W	None	Hamerly-Badger complex
DP123	44.59645	-96.622146	17	T113N, R48W	PEM1C	Barnes-Svea loams
DP124	44.596453	-96.622237	17	T113N, R48W	None	Barnes-Svea loams
DP125	44.593334	-96.622466	18	T113N, R48W	PEM1C	Buse-Lamoure, channeled, complex

Datapoint Number	Latitude	Longitude	Section	Township, Range	NWI Polygon	Soil Map Unit
DP126	44.593368	-96.622427	18	T113N, R48W	PEM1C	Buse-Lamoure, channeled, complex
DP127	44.587433	-96.616521	17	T113N, R48W	None	Singsaas-Waubay silty clay loams
DP128	44.587388	-96.617257	17	T113N, R48W	None	Singsaas-Waubay silty clay loams
DP131	44.594917	-96.621592	17	T113N, R48W	None	Barnes-Svea loams
DP132	44.594896	-96.621486	17	T113N, R48W	None	Barnes-Svea loams
DP133	44.580247	-96.607055	20	T113N, R48W	None	Buse-Lamoure, channeled, complex
DP134	44.580244	-96.607007	20	T113N, R48W	None	Buse-Lamoure, channeled, complex
DP135	44.58018	-96.598356	21	T113N, R48W	PEM1Cd	Hamerly-Badger complex
DP136	44.580068	-96.598463	21	T113N, R48W	None	Hamerly-Badger complex
DP137	44.580606	-96.586098	21	T113N, R48W	PEM1C	Lamoure-Rauville silty clay loams, channeled
DP138	44.580641	-96.586132	21	T113N, R48W	None	Lamoure-Rauville silty clay loams, channeled
DP141	44.622677	-96.680138	2	T113N, R49W	PEM1Ad	Parnell-Vallers complex
DP142	44.622542	-96.679228	2	T113N, R49W	PEM1Ad	Hamerly-Badger complex
DP143	44.601928	-96.694798	10	T113N, R49W	None	Barnes-Buse loams
DP144	44.601815	-96.704664	10	T113N, R49W	None	Barnes-Buse loams
DP145	44.6089	-96.704664	9	T113N, R49W	None	Kranzburg-Brookings silty clay loams
DP146	44.608838	-96.704452	9	T113N, R49W	None	Kranzburg-Brookings silty clay loams
DP148	44.608328	-96.726288	8	T113N, R49W	None	Buse-Lamoure, channeled, complex
DP149	44.608303	-96.726247	8	T113N, R49W	None	Kranzburg-Brookings silty clay loams
DP150	44.624104	-96.723424	4	T113N, R49W	None	Kranzburg-Brookings silty clay loams
DP151	44.623817	-96.723397	4	T113N, R49W	None	Kranzburg-Brookings silty clay loams
DP152	44.589611	-96.723706	17	T113N, R49W	None	McIntosh-Lamoure silty clay loams
DP153	44.589596	-96.723667	17	T113N, R49W	None	McIntosh-Lamoure silty clay loams

3.1.1 Wetland Vegetation

The majority of wetlands delineated were dominated by emergent vegetation. Only one delineated wetland was dominated by scrub-shrub. Dominant emergent vegetation included leafy tussock sedge (Carex aquatilis), Nebraska sedge (Carex nebrascensis), large barnyard grass (Echinochloa crus-galli), common spike-rush (Fraxinus pennsylvanica), pink weed (Persicaria pensylvanica), reed canary grass (Phalaris arundinacea), Kentucky bluegrass (Poa pratensis), peach-leaf willow (Salix amygdaloides), narrow-leaf willow (Salix exigua), hard-stem club-rush (Schoenoplectus acutus), soft-stem club-rush (Schoenoplectus tabernaemontani), alkali cordgrass (Spartina gracilis), freshwater cordgrass (Spartina pectinata), narrow leaf cattail (Typha angustifolia), stinging nettle (Urtica diocia), and simpler's joy (Verbena hastata). Other dominant species were smooth brome (Bromus inermis), soybean (Glycine max), maximilian sunflower (Helianthus maximiliani), and timothy grass (Phleum pratense).

3.1.2 Wetland Soils

Wetland datapoint hydric soil indicators were dominated by Loamy Thick Dark Surface (A12). Other hydric soil indicators were Depleted Below Dark Surface (A11) and Depleted Matrix (F3).

3.1.3 Wetland Hydrology

The primary wetland hydrology indicators were Saturation (A3), Surface Water (A1), and High Water Table (A2). Secondary indicators were Geomorphic Position (D2), FAC-Neutral Test (D5), and Drainage Patterns (B10). The Inundation Visible on Aerial Imagery (B7) indicator was also present at some datapoints.

3.2 Waterbodies

Only one non-wetland waterbody was delineated within the survey area (waterbody WB101). The OHWMs of waterbody WB101 were recorded in the field using a GPS unit with submeter accuracy. Table 3 presents WB101's waterbody type, length in the survey area, waterbody acreage in the survey area, average width of the waterbody, flow regime, and primary OHWM indicator.

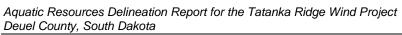
Table 3. Delineated Waterbody

Feature ID	Туре	Length (feet)	Area (acres)	Median Width (feet)	Flow Regime	OHWMs
WB101	Stream	330	0.148	10	Perennial	Bed and banks, clear vegetation line, drifted debris

WB101 is an unnamed first order stream, located in the Fish Lake HUC12 watershed (070200030104), which is a tributary to the Lac qui Parle River. WB101 exhibited perennial flows during field surveys and desktop aerial imagery review. It is likely that this stream becomes intermittent in drought years. There is a ponded area within the OHWMs of this stream that is located in the survey area. This ponded area is likely perennial in all years except during the most extreme drought.

4 LITERATURE CITED

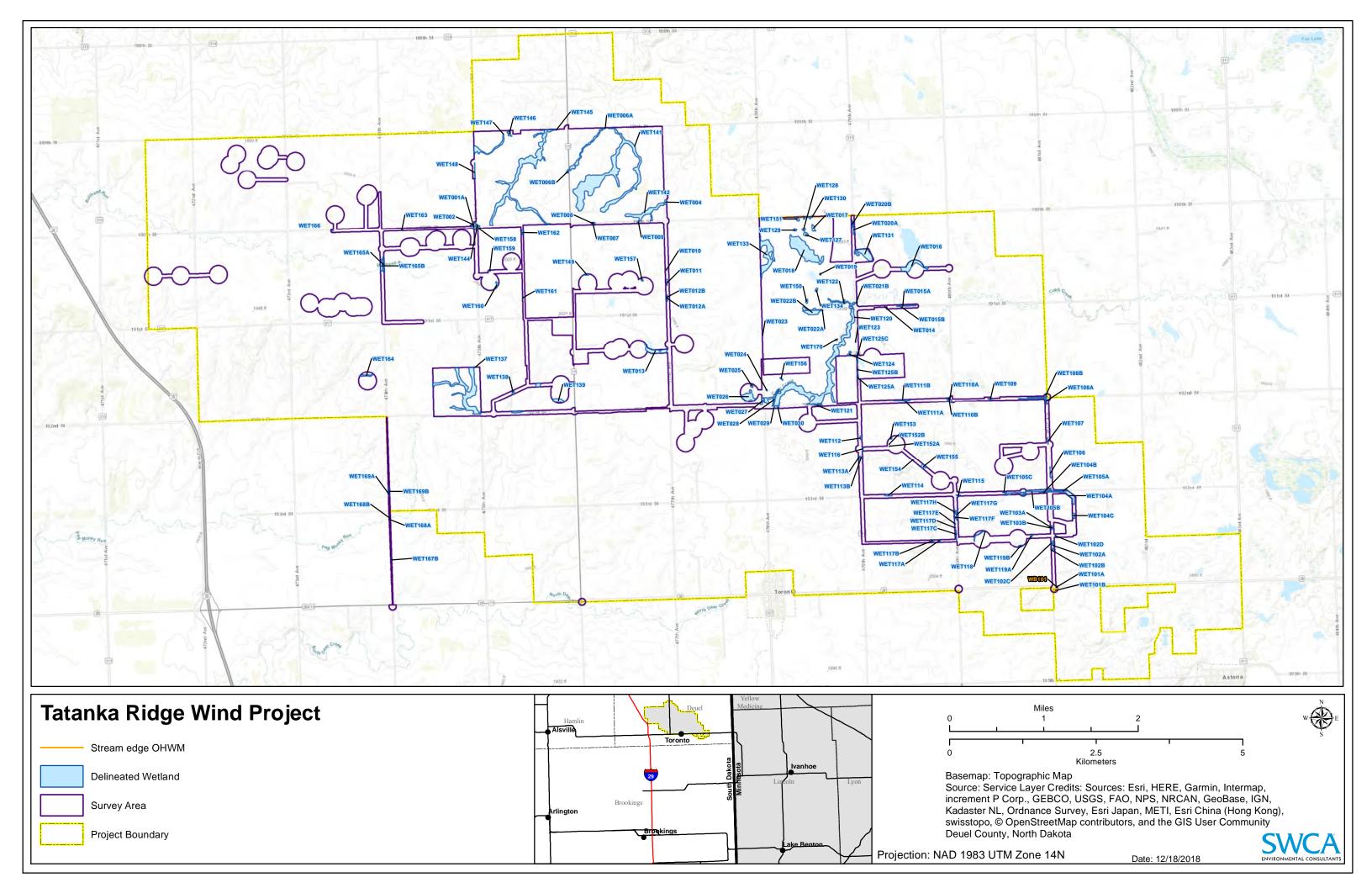
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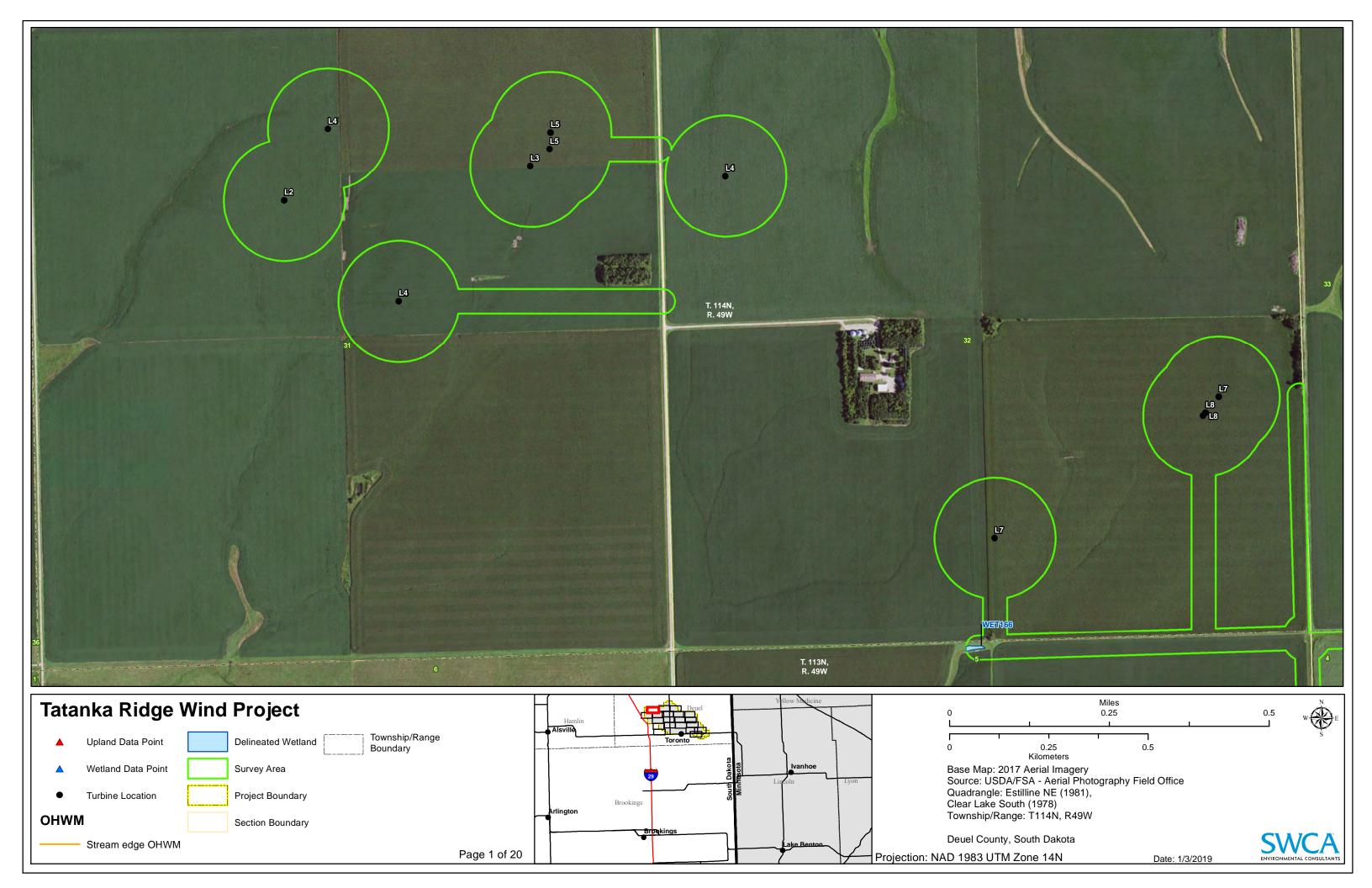


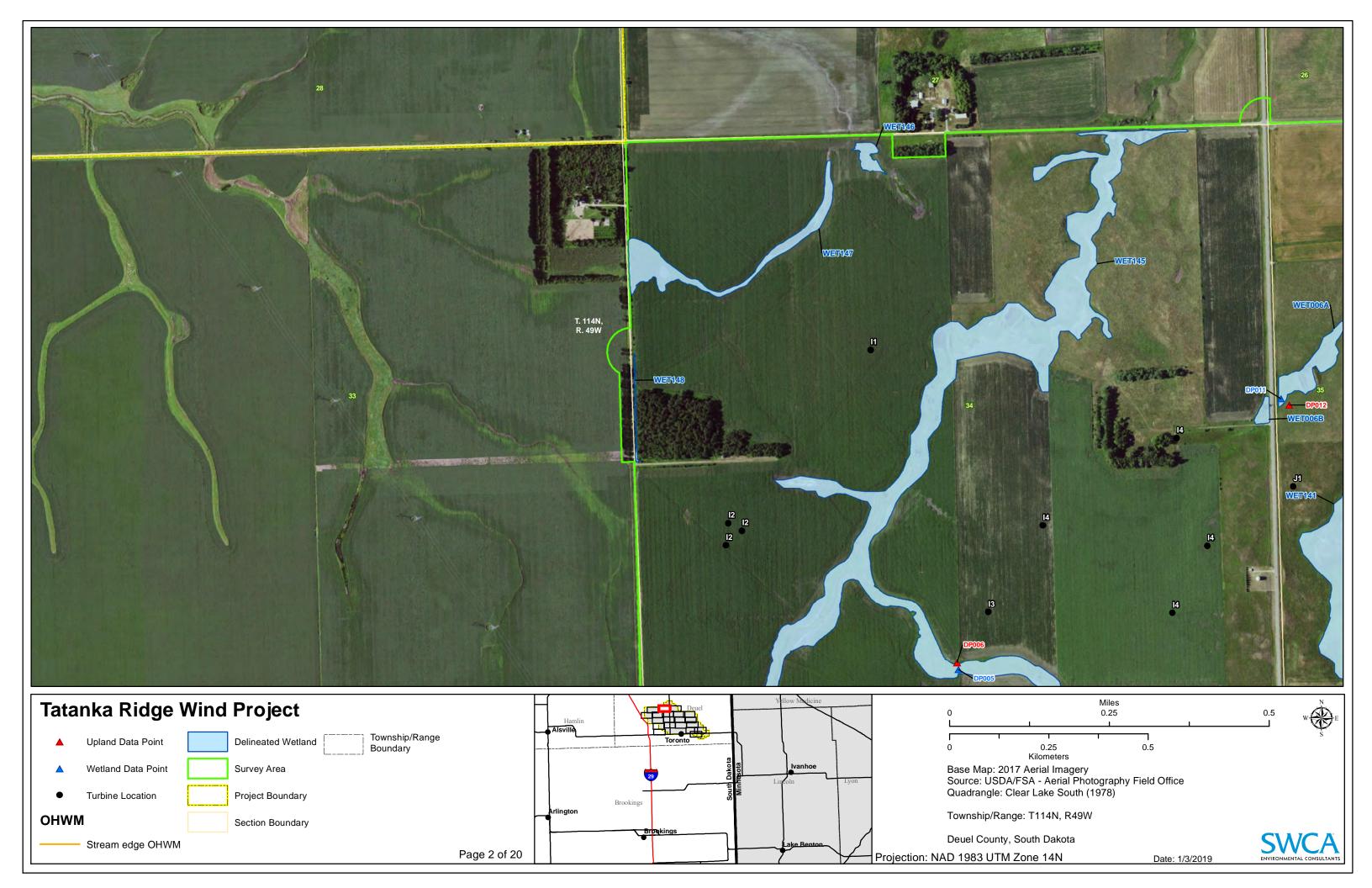
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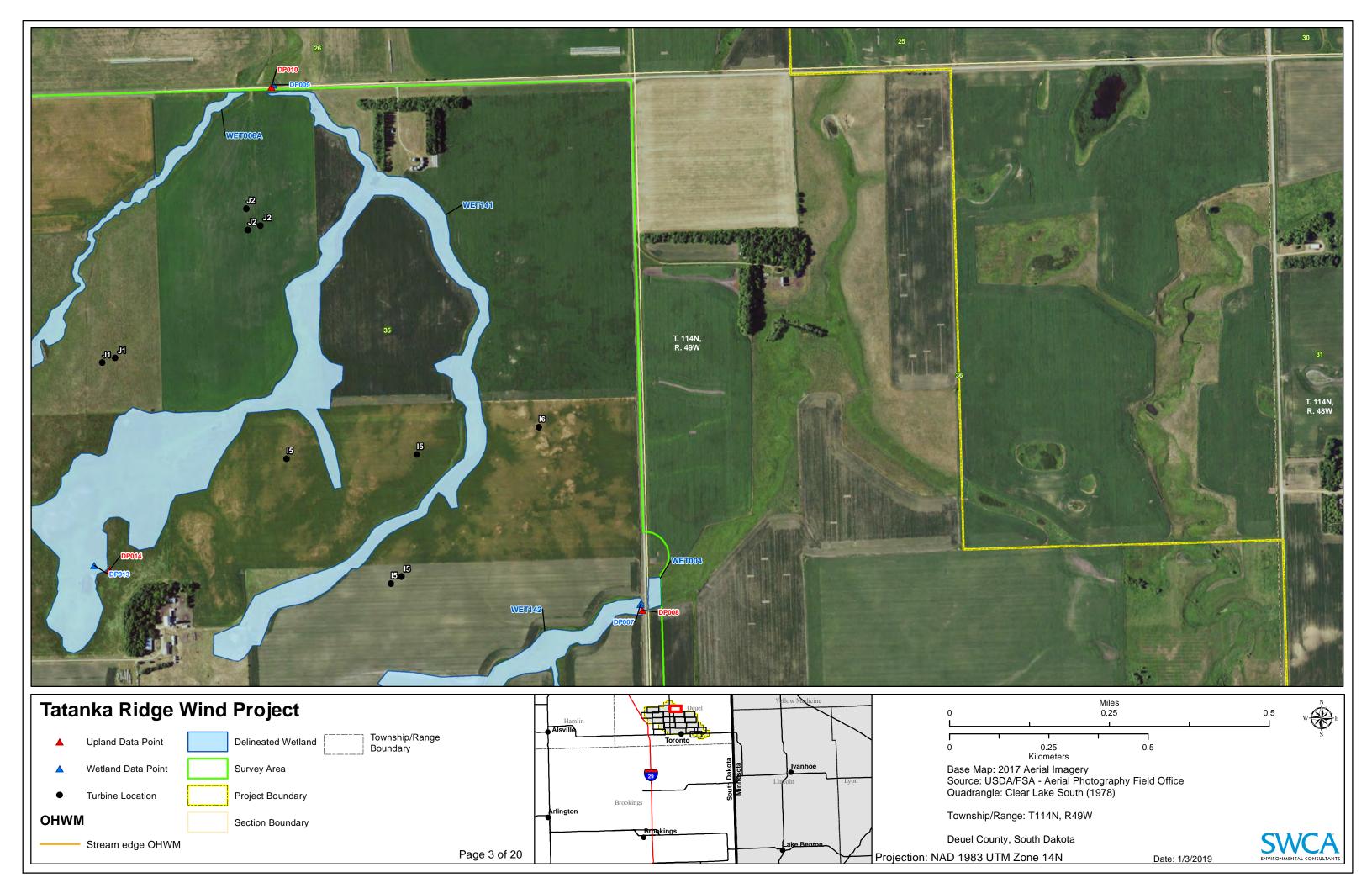
APPENDIX A

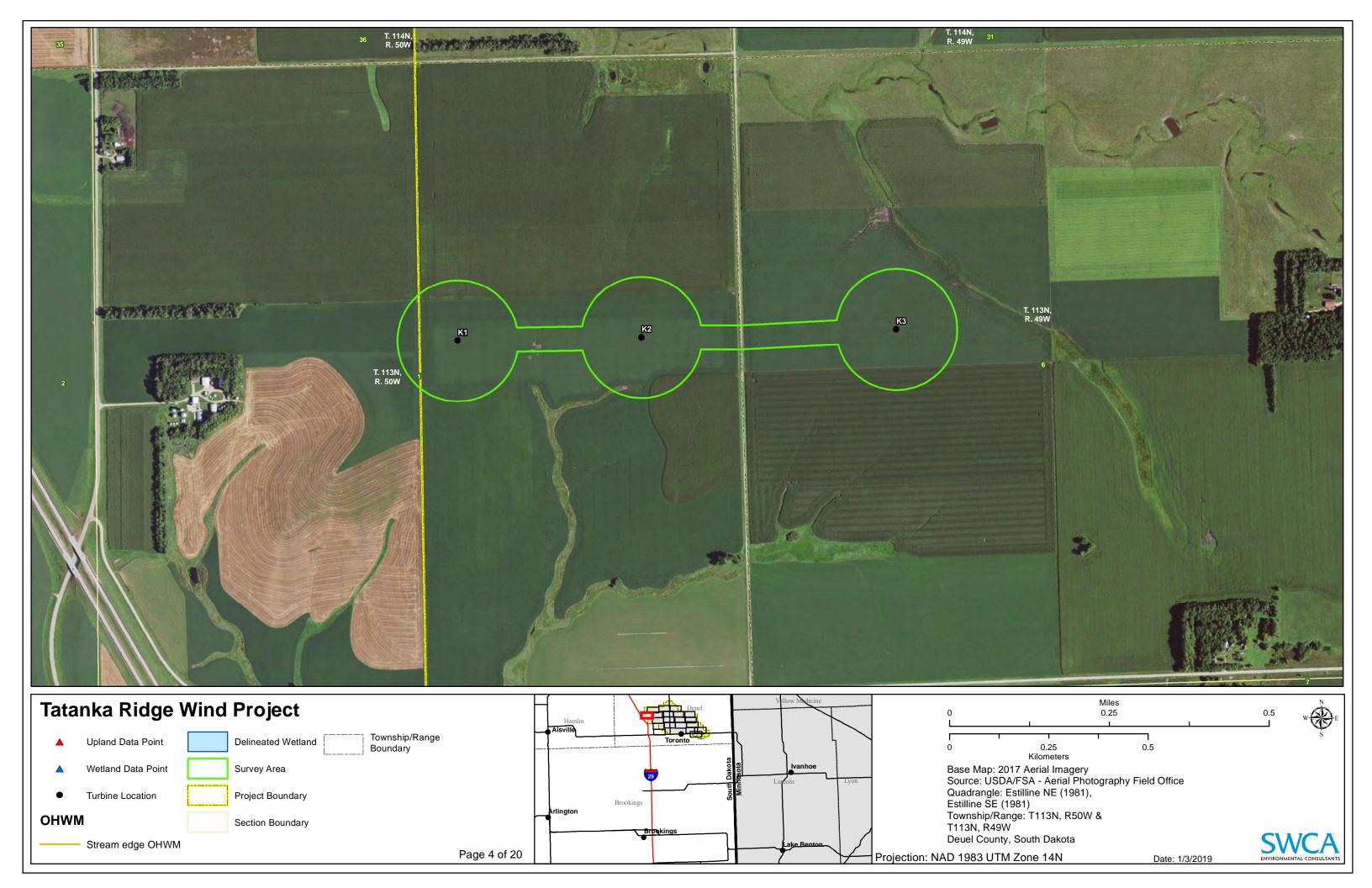
Maps

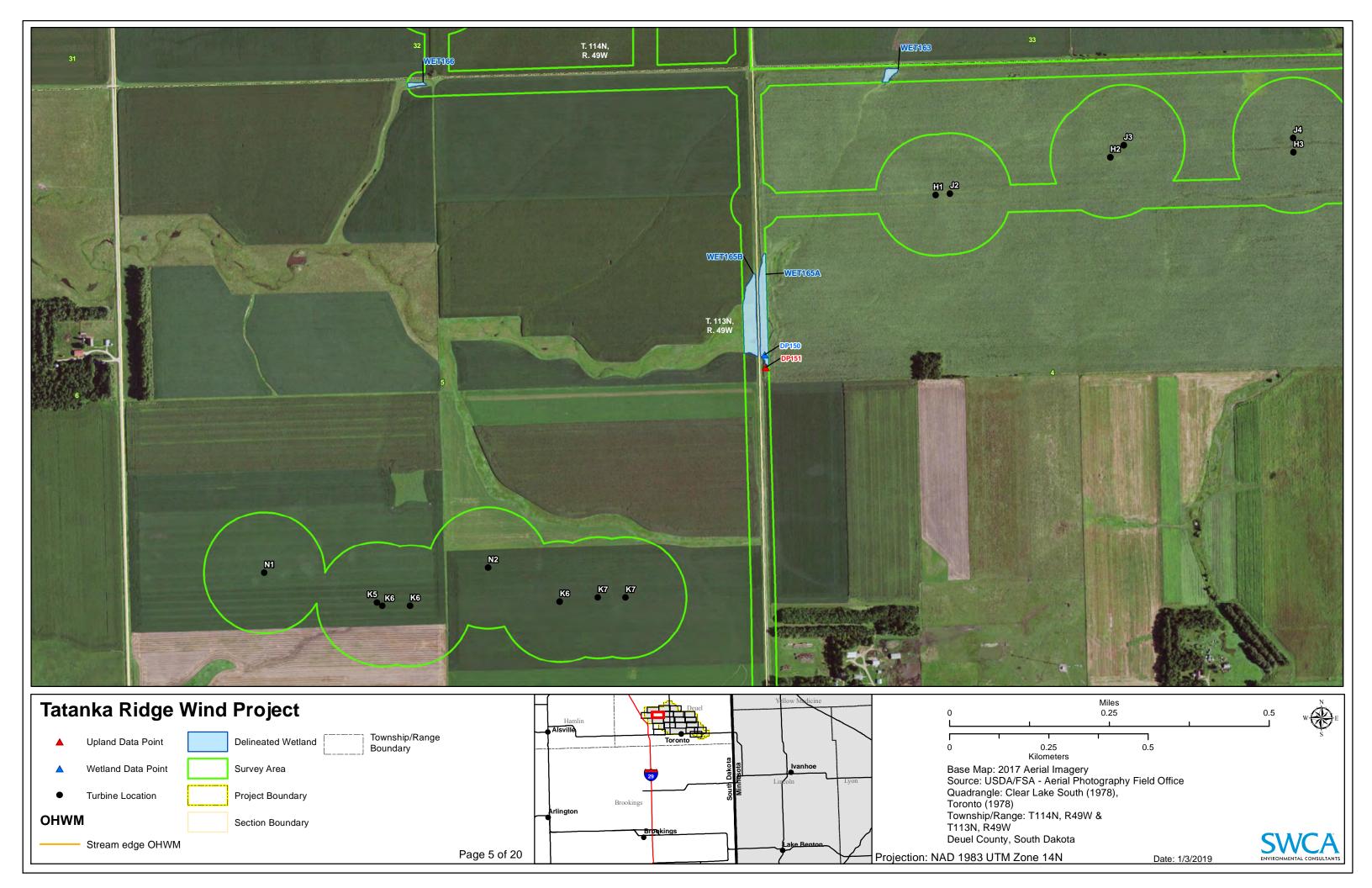


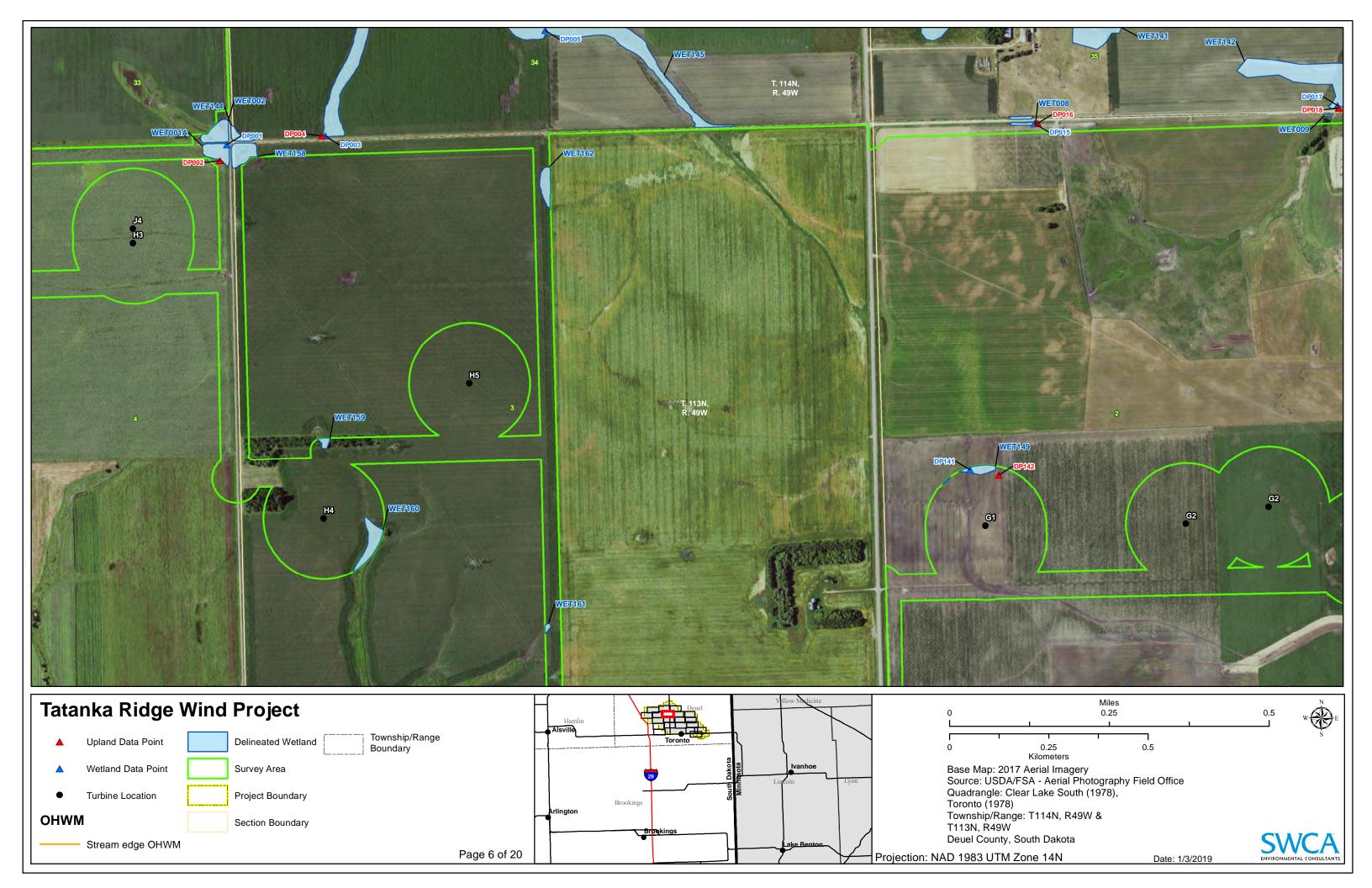


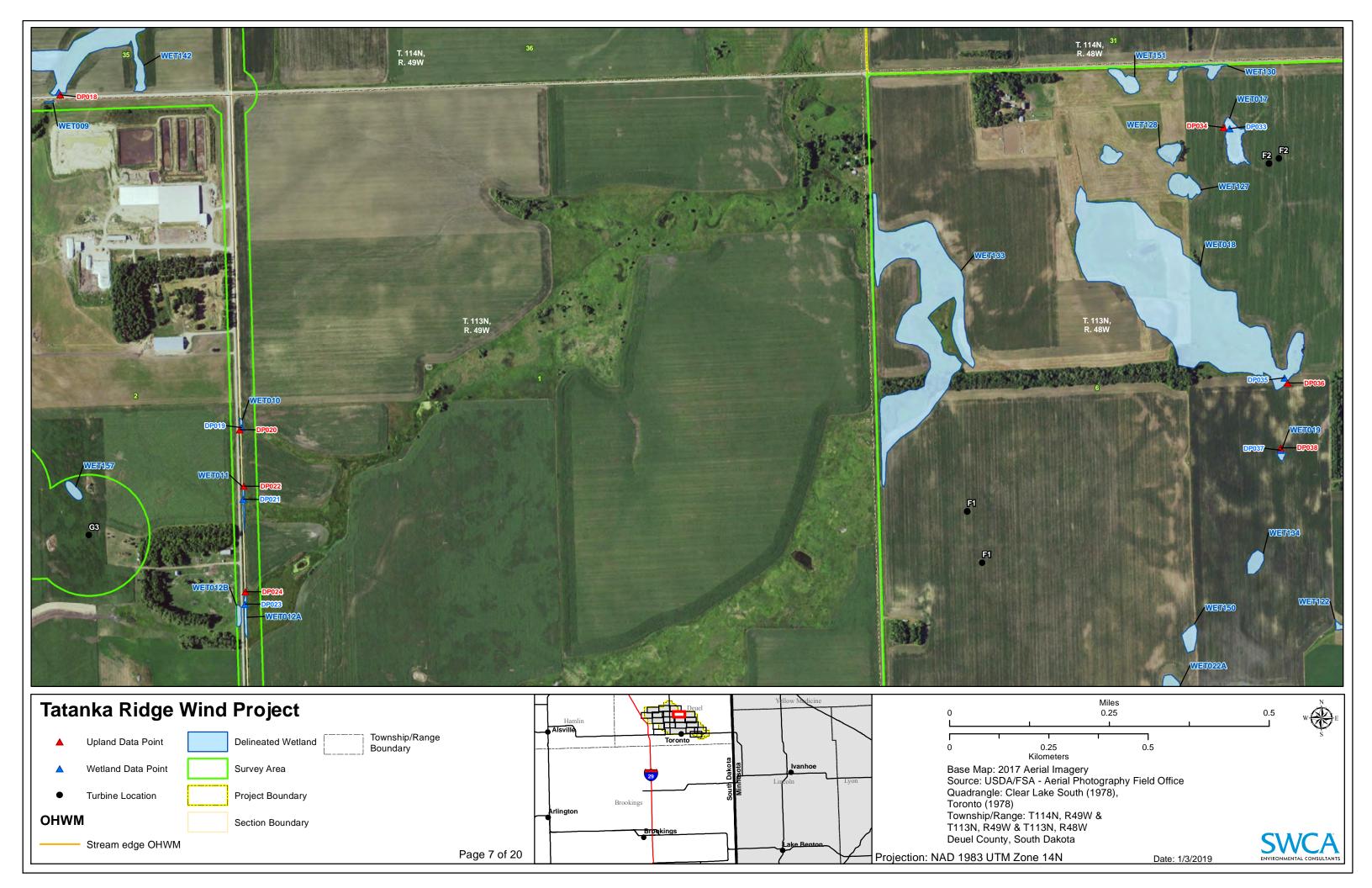


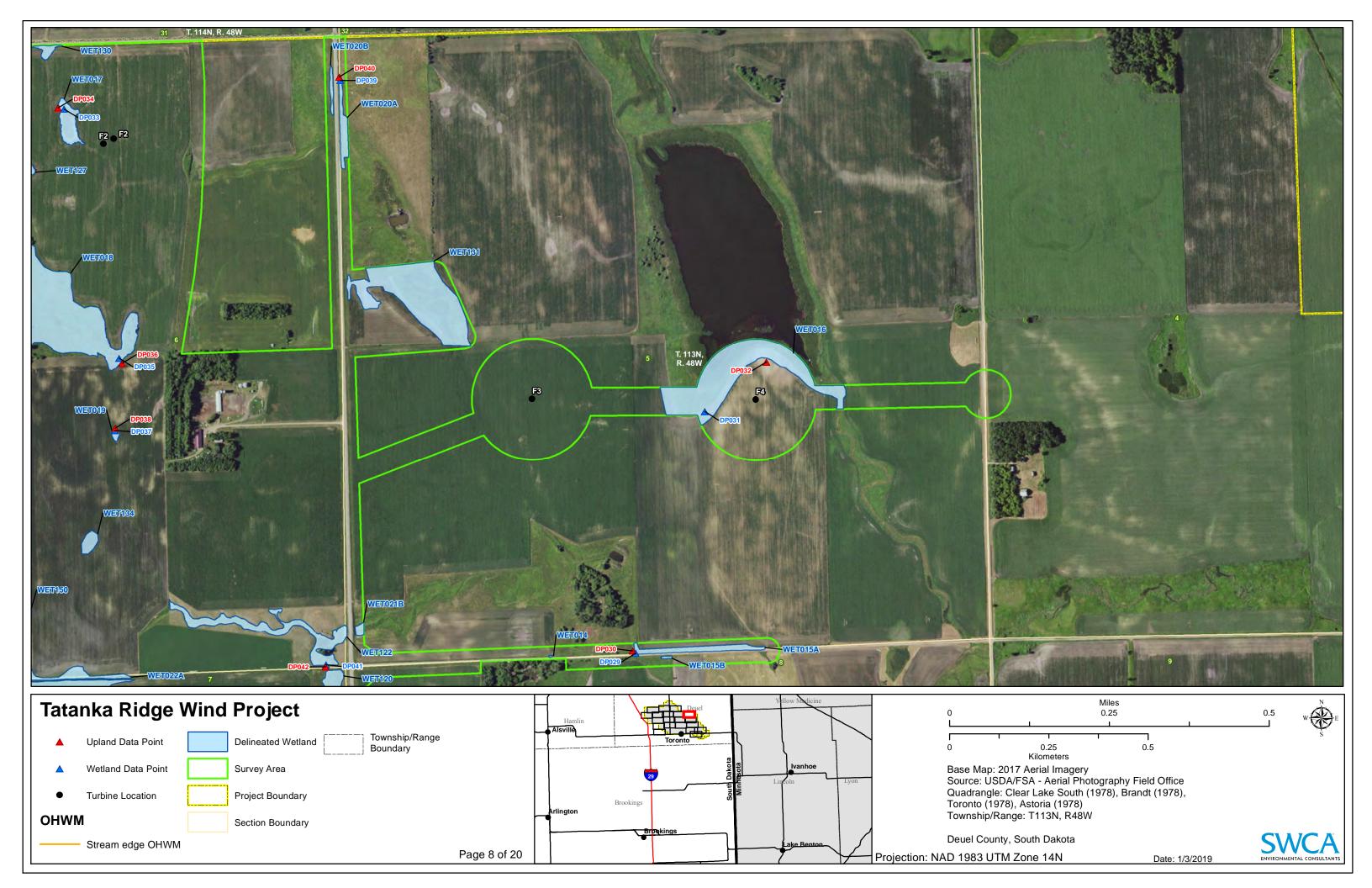


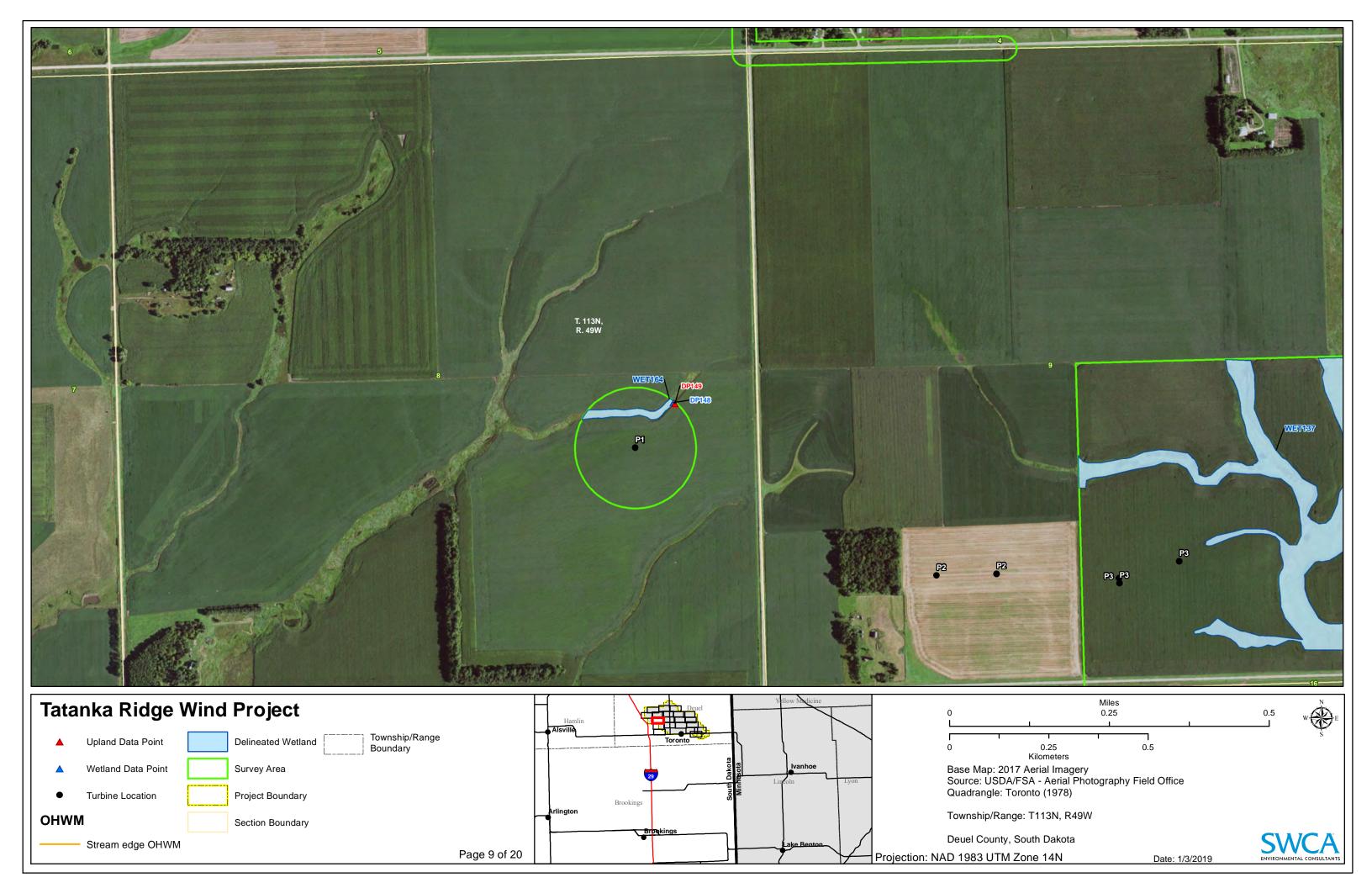


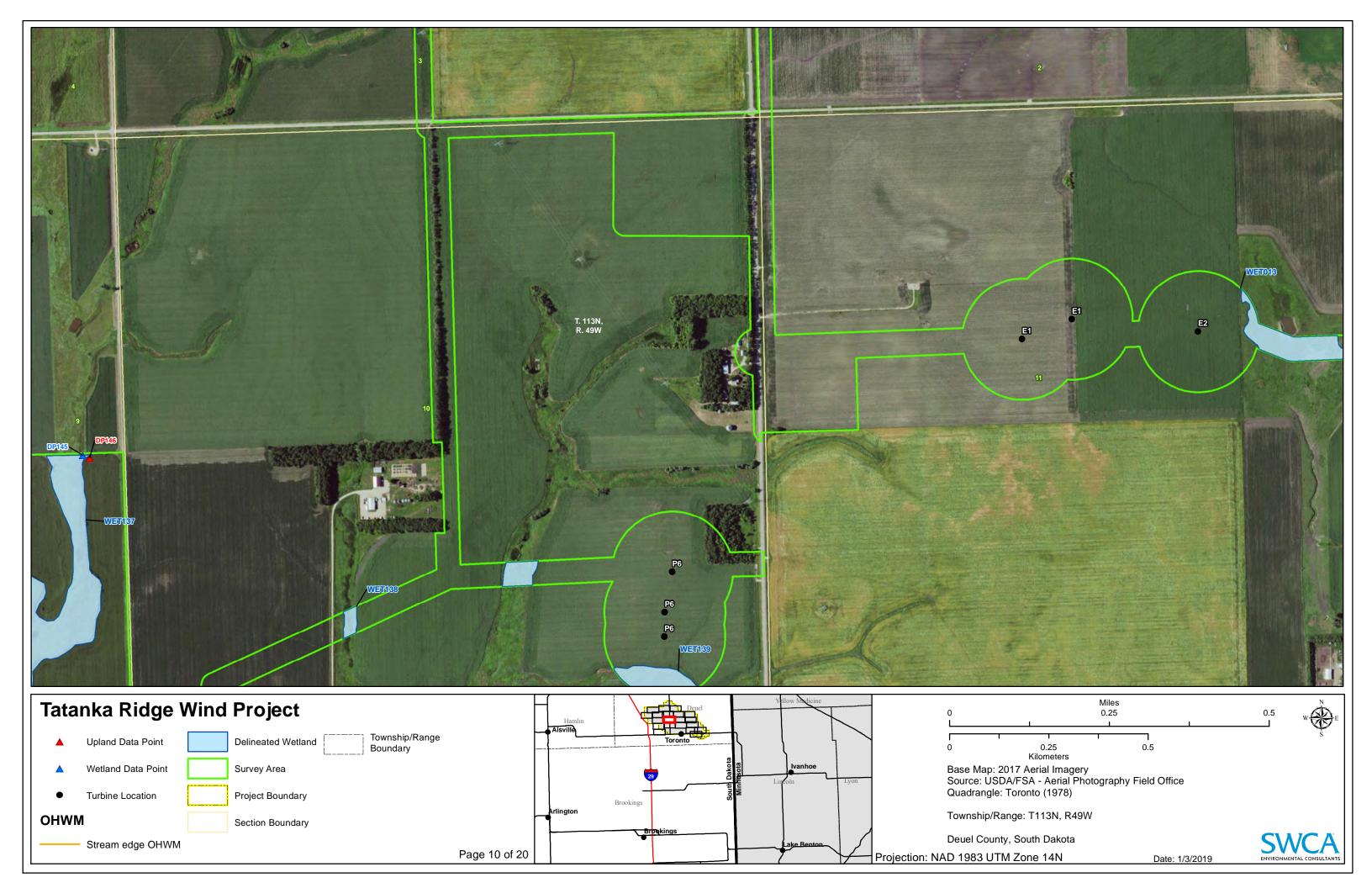


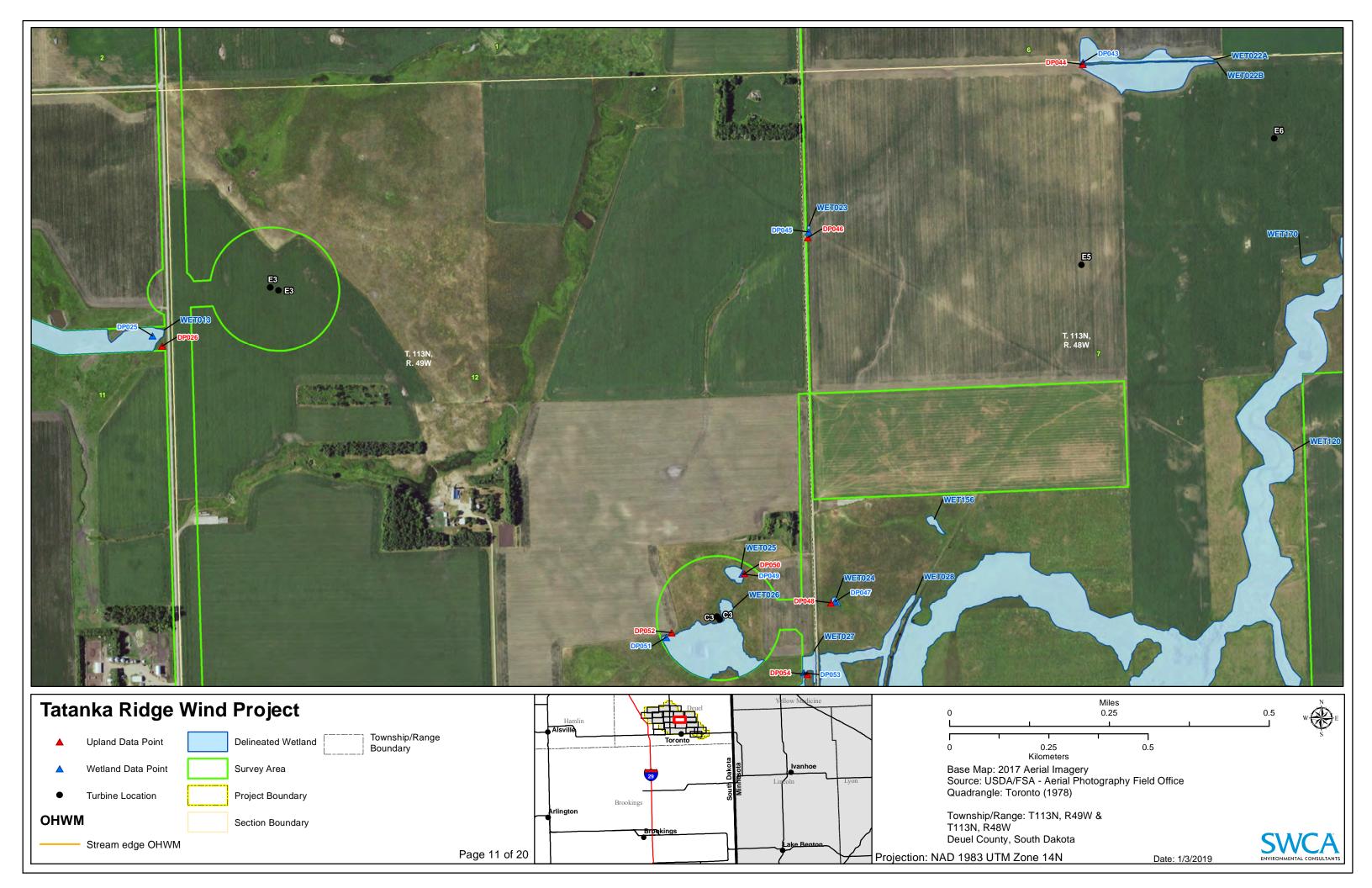


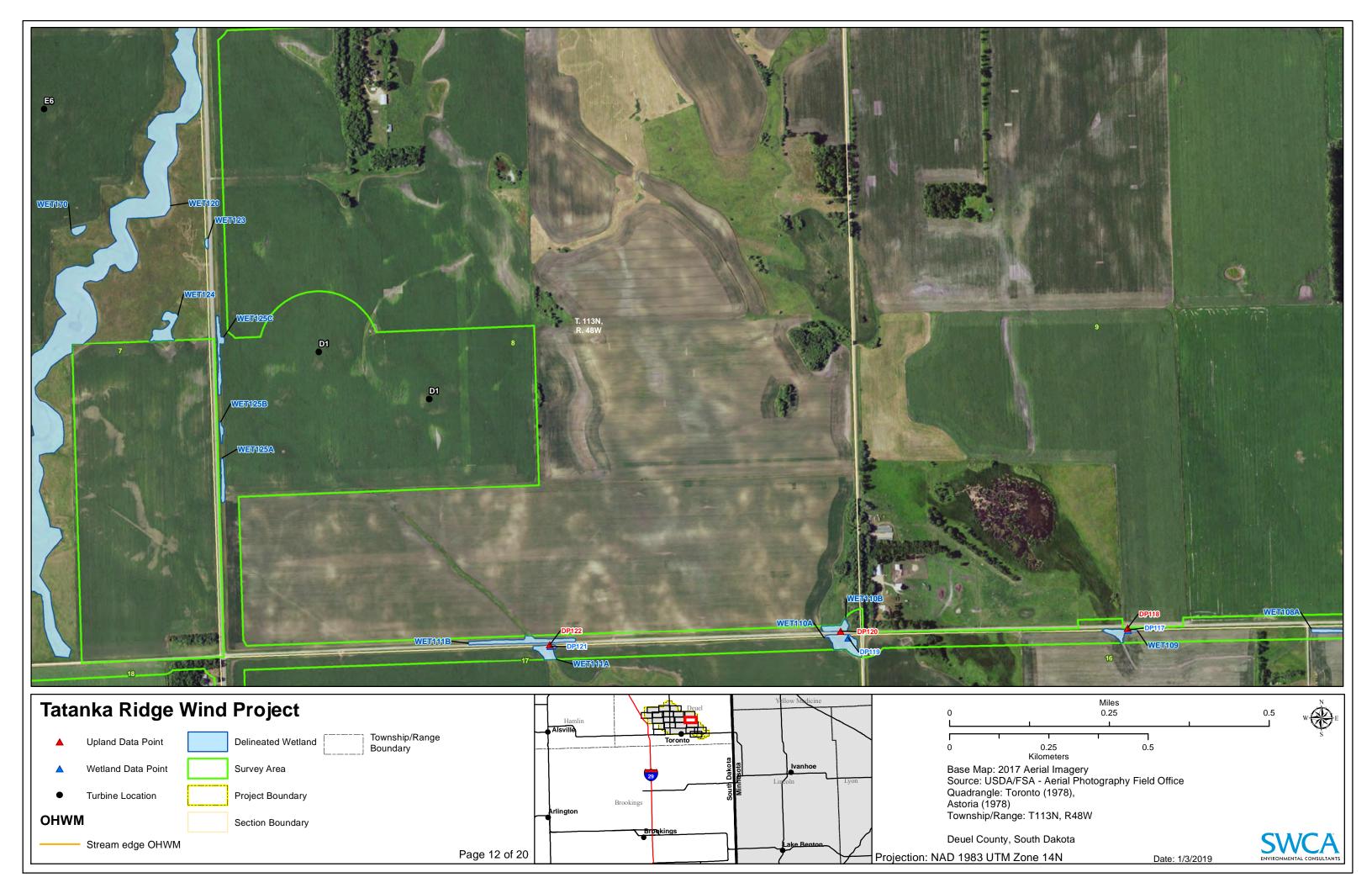


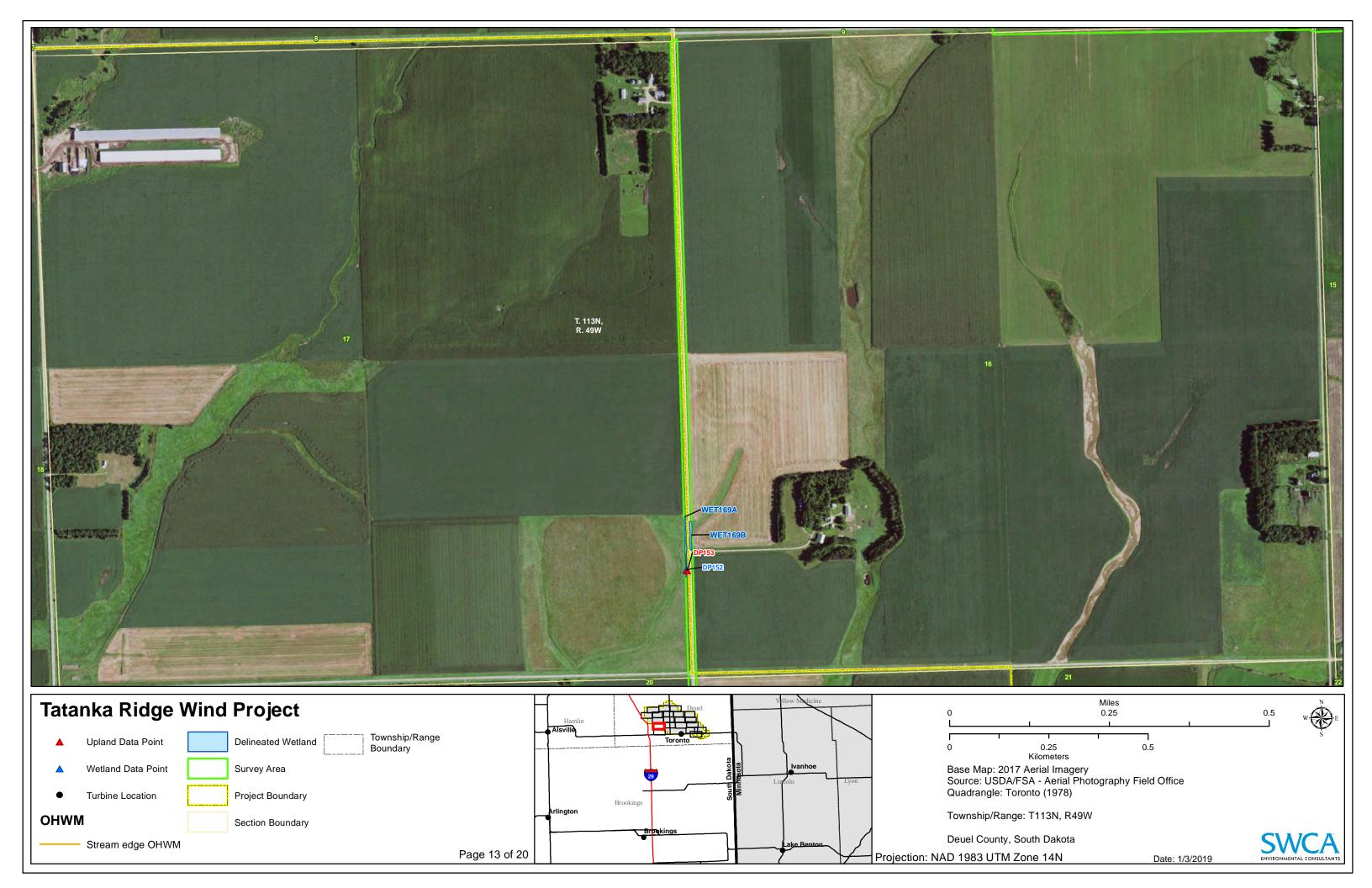


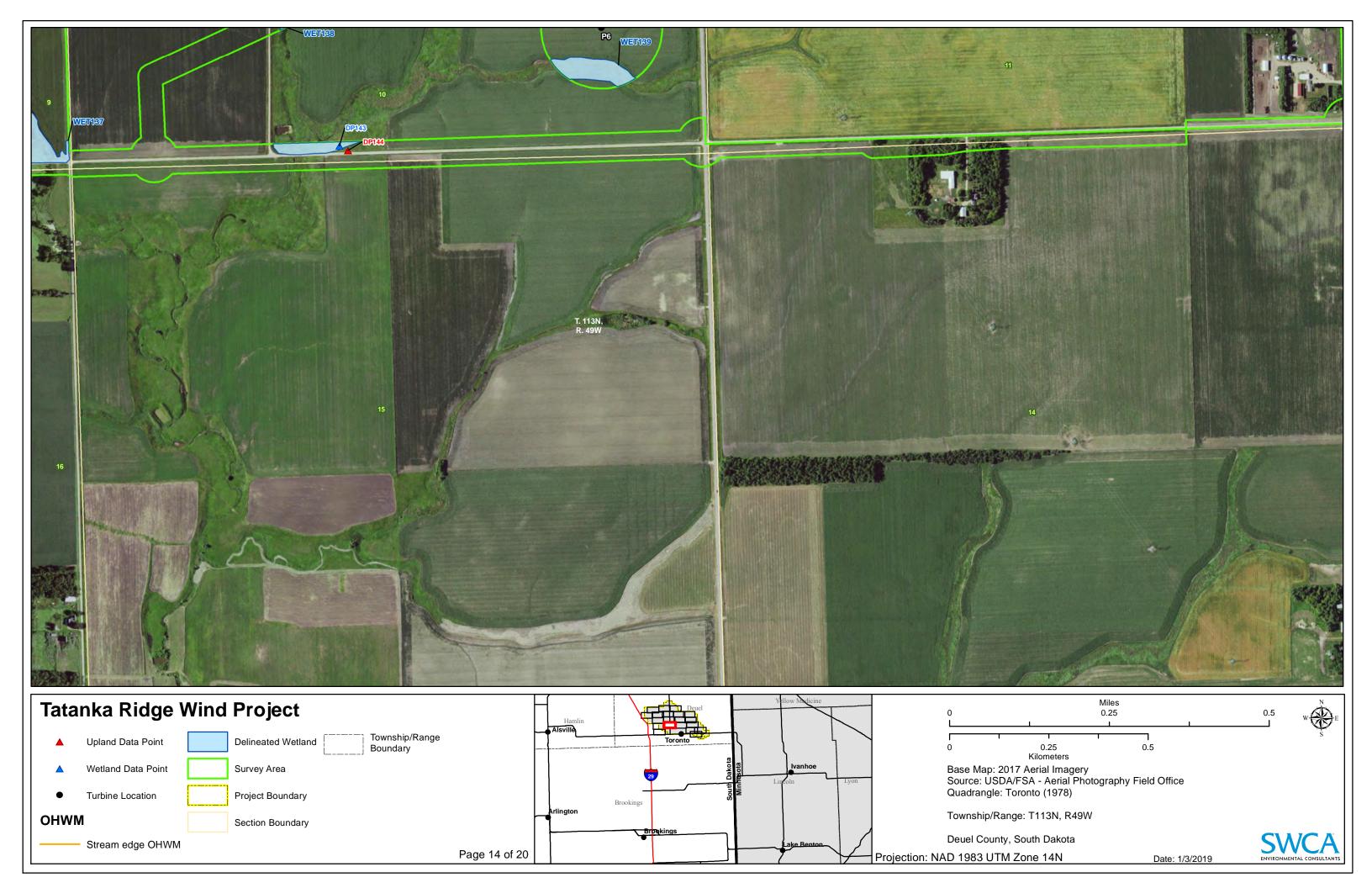


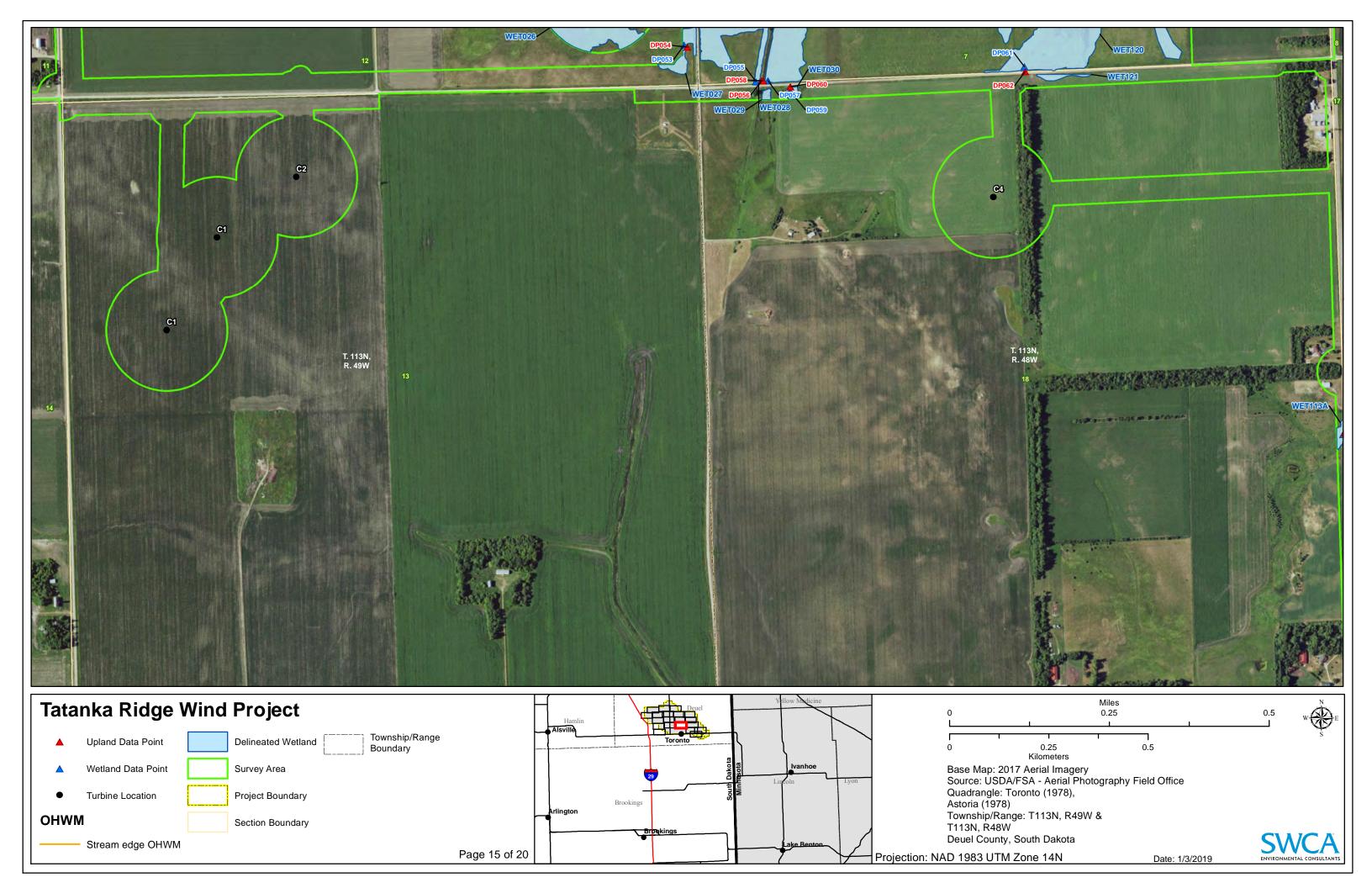


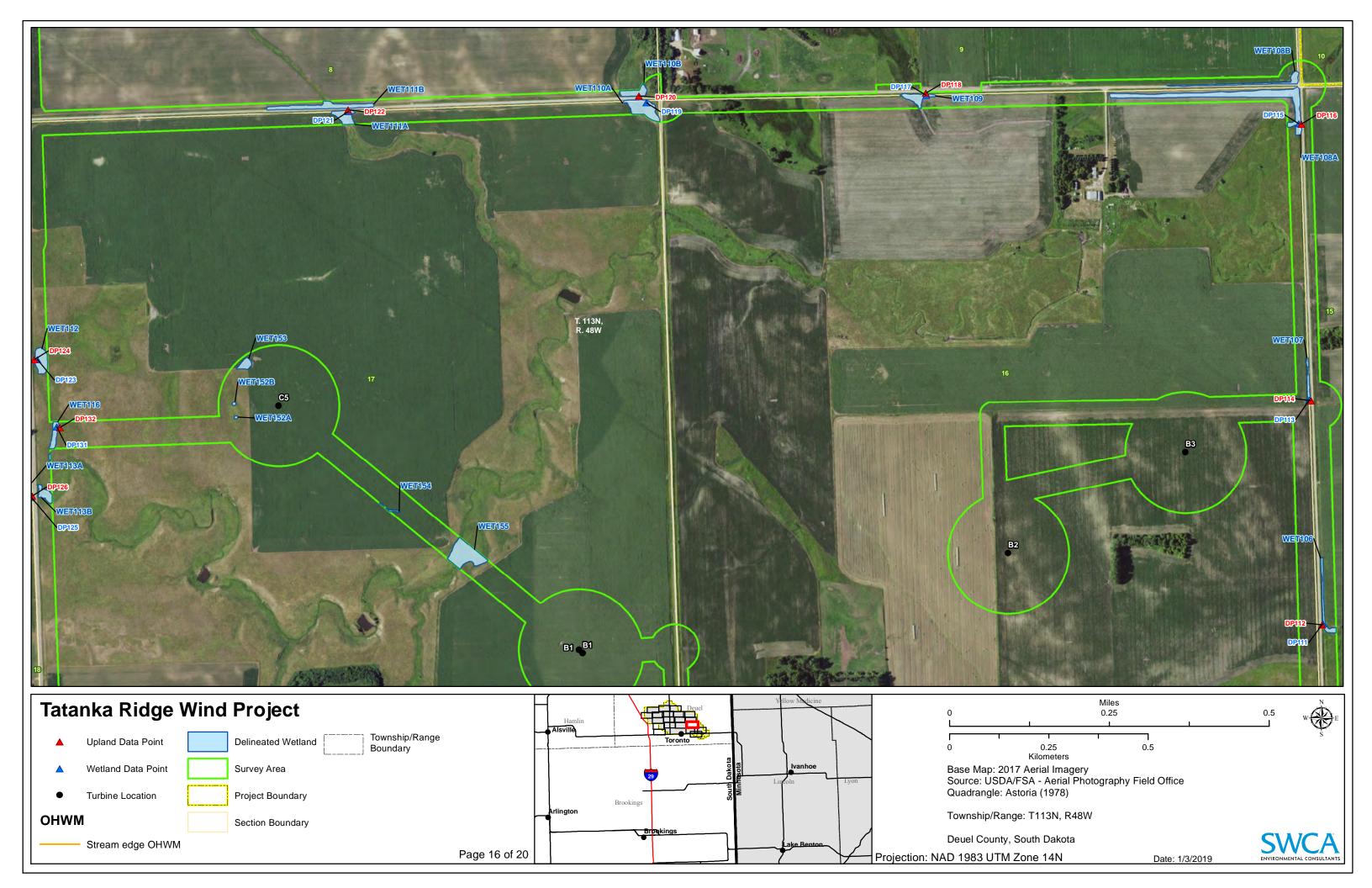




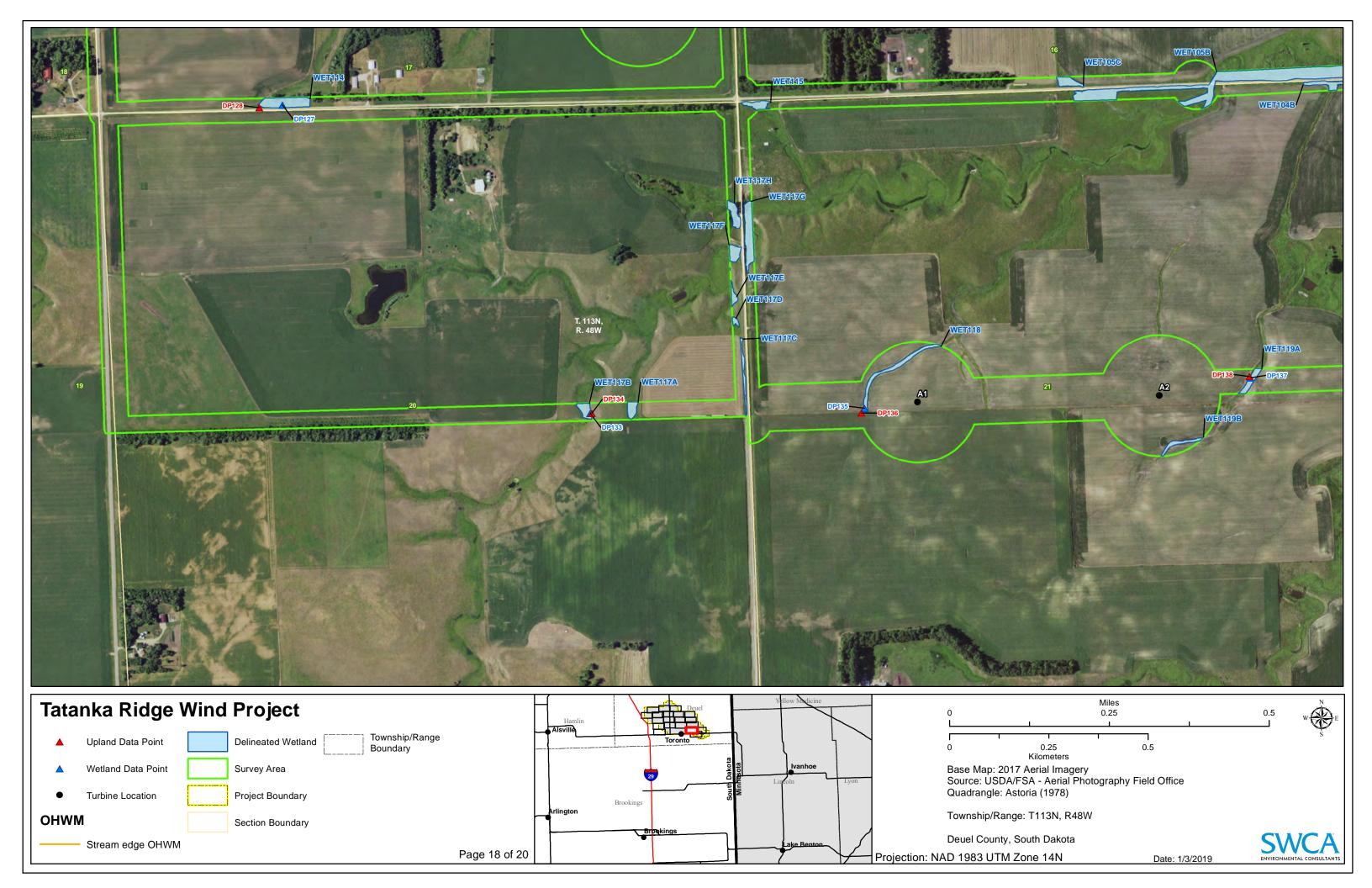


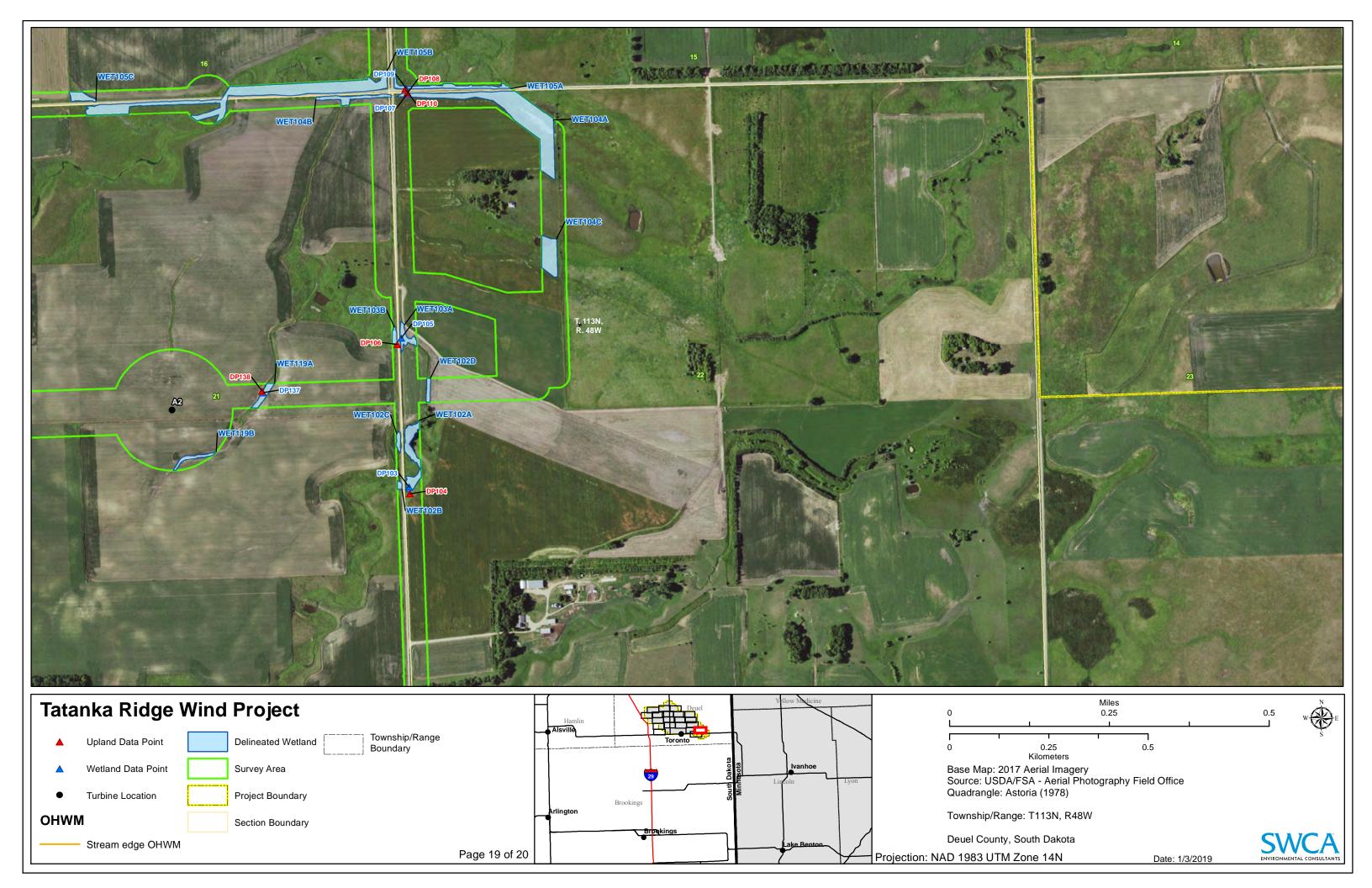


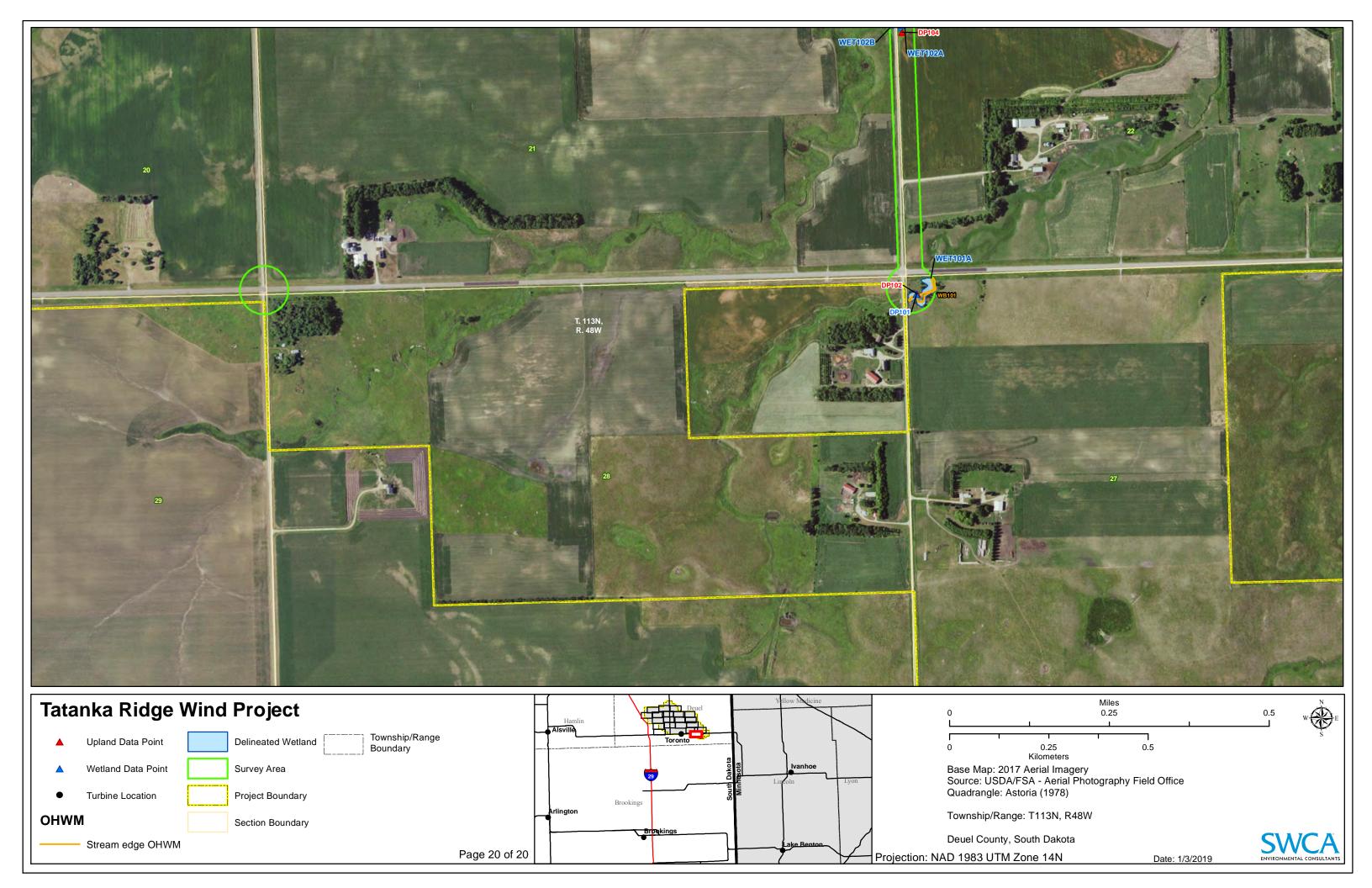












APPENDIX B

Datasheets

Project/Site: Tatanka Ridge Wind Project		City/Cour	nty: Deu	uel County		Sampl	ing Dat	te: 7/31	./2018
Applicant/Owner: Buffalo Ridge III, LLC				State: 5	SD	Samp	ing Poi	nt: DPC	001
Investigator(s): E. Schwartz, P. Swartzinski			Sect	ion, Township,	Range:		, ,		
Landform (hillslope, terrace, etc.): depressi	ion		Local rel	ief (concave, co	onvex, none):	Concave			
Slope (%): <5% Lat:			Long:			Datu	m: NA	D83	
Soil Map Unit Name:					NV	/I classification:			
Are climatic/hydrologic conditions on the site t			_	X No		o, explain in Rer			
Are Vegetation <u>No</u> , Soil <u>No</u> , or Hydi						ances" present	? Yes	X	No
Are Vegetation No , Soil No , or Hyd	rology No	naturally pr	oblemat	ic? (if neede	ed, explain in	Remarks.)			
SUMMARY OF FINDINGS – Attach site	map show	ing sampli	ng poir	nt locations,	transects,	important fe	autre	s, etc.	
Hydrophytic Vegetation Present? Yes	X No								
Hydric Soil Present? Yes	X No			s the Sampled		Yes X N	0		
Wetland Hydrology Present? Yes	X No		, v	vithin a Wetlar	10?	163 <u>X</u> N			
Remarks:									
PEM									
VECTATION Has acceptific manners	£ 4								
VEGETATION – Use scientific names o	Absolute	DominantS	Indicat	or D-		18/awkahaat.			
<u>Tree Stratum</u> (Plot size: <u>30</u>)	% Cover	pecies?	Status	00	minance Test				
					mber of Dom at Are OBL, FA	inant Species		4	(A)
1.					tal Number of				_
		= Total Co	over		ecies Across A			4	(B)
Sapling/Shrub Stratum (Plot size: 15	1			-	rcent of Domi				
	/	V	EA C\A	Tha	at Are OBL, FA	•	1	100.0%	(A/B)
1. Salix exigua	20%	Y	FACW						
2		-	-	Pre	evalence Inde	x Worksheet:			
	20%	= Total Co	ver	Tot	tal % Cover of	÷:	Mult	iply by:	
Herb Stratum (Plot size: 5)				ОВ	L species	25%	x 1	25.0%	
Persicaria pensylvanica	45%	Υ	FACW	/ FA	CW species	110%	x 2	220.0%	
2. Phalaris arundinacea	35%	Υ	FACW	/ FA	C species	7%	x 3	21.0%	
3. Typha angustifolia	25%	Υ	OBL	FA	CU species	0%	x 4	0.0%	
4. Spartina pectinata	10%	N	FACW	1			-	0.0%	
5. Asclepias speciosa	7%	N	FAC		L species	0%	x 5		
6.				Со	lumn Totals:	142.0%	(A)	266%	(B)
	122%	= Total Co	over		Prevalence In	dex = B/A =		1.87	
Woody Vine Stratum (Plot size: 15)	_		Ну	drophytic Ve	getation Indica	tors:		
(**************************************	_'			v	1 - Ranid Te	st for Hydrophy	tic Vea	etation	
1.					_	ce Test if >50%	_	ctation	
		= Total Co	nver		_	ce Index is ≤ 3.0			
		10101 00	7461		_				
				<u> </u>		ogical Adaptation arks or on a seg			porting
				N		Hydrophytic Ve			n)
				Indica	_ ators of hydri	soil and wetla	nd hyd	rology mu	ist be
				prese	ent, unless dis	turbed or probl	ematic		
				Ну	drophytic				
				-	getation	Va V	Ne		
				Pre	esent?	Yes X	NO		
Remarks:									
nemarks.									

Profile Desc	ription: (Des	cribe to	the de	pth neede	d to document the i	ndicator or cor	nfirm the ab	osence of indicator	
Depth	N	1atrix			Redox F	eatures			
(inches)	Color	:	%	C	Color: %	Type:	Loc:	Texture:	Remarks:
0-16	10YR 2		100%			- 1,10		Clay Loam	
								•	
16-20	10G 3/	1	60%				_	Clay Loam	
Type: C=Con	centration,	D=Deplet	tion, RN	∕I=Reduced	d Matrix, CS=Covere	d or Coated Sar	nd Grains	Location:	PL=Pore Lining, M=Matrix
Hydric Soil II	ndicators: (A	Applicabl	le to all	LRRs, unle	ess otherwise noted	l.)		Indicators for Problem	natic Hydric Soils
Histoso	I (A1)				Sandy Gleyed Matri	ix (S4)		Coast Prairie Red	oc (A16)
l ———	pipedon (A2)			Sandy Redox (S5)			Dark Surface (S7)	
	istic (A3)				Stripped Matrix (S6			Iron-Manganese	
	en Sulfide (A				Loamy Mucky Mine			Very Shallow Darl	
	ed Layers (A	5)			Loamy Gleyed Matr			Other (Explain in	Remarks)
	uck (A10)				Depleted Matrix (F3				
l ——	ed Below Da		e (A11)		Redox Dark Surface				
	ark Surface (Depleted Dark Surfa			Indicators of hydrophy	_
Sandy N	Mucky Mine	rai (S1)			Redox Depressions	(F8)		wetland hydrology mu	
								disturbed or problema	tic.
Restrictive L	ayer (if pres	ent):							
Type: N	None							Hydric Soil Present?	Yes X No
Depth (ii	nches): <u>N</u>	Α						•	
Remarks:									
HYDROLOG									
Wetland Hy									
· -		mum of d	one req	uired; ched	ck all that apply)	(50)		•	icators (2 or more required)
X Surface		2)		=	Water-Stained L				oil Cracks (B6)
_	iter Table (A	2)			Aquatic Fauna (E			-	Pattern (B10)
X Saturation				_	True Aquatic Pla				n Water Table (C2)
	1arks (B1) nt Deposits (D2\		-	Hydrogen Sulfid Oxidized Rhizosph	٠, ,	ots (C3)		urrows (C8) Visible on Aerial Imagery (C9)
	posits (B3)	DZ)		=	Presence of Red		013 (C3)		r Stressed Plants (D1)
I	at or Crust (E	84)		-	Recent Iron Red	` '	Soils (C6)		nic Position (D2)
	osits (B5)	, -,		=	Thin Muck Surfa		30113 (00)	X FAC-Neuti	
	on Visible on A	erial Imag	gery (B7	-	Gauge or Well D			<u> </u>	a. rest (55)
	Vegetated Coi	-			Other (Explain in				
				-	<u> </u>	ŕ			
						ı			
Field Observ		.,	.,						
Surface Wat				No	_	6			
Water Table		Yes		No		0	Wetland	Hydrology Present?	Yes <u>X</u> No
Saturation P (includes cap			X	No	_ Depth (inches):	0			
			guage.	monitoring	g well, aerial photos	, previous insne	ections). if a	vailable:	
Remarks:		,	J = -(B =)		,	, , : : : : : : : : : : : : : : : : : :	,, •		
nemarks.									

Hydric Soil Present? Yes _	vpical for this ology No ology No map show No No	time of year' significantly naturally pr ing sampli X X	Sec Local re Long: ? Yes / disturl roblema	X bed? atic? int loca	State: SD wnship, Range: ncave, convex, none) No (if n Are "Normal Circums if needed, explain in	Sam Linear Slc Dat WI classification o, explain in Re tances" preser Remarks.)	um: NAI n: emarks.) at? Yes	DP00 D83 X s, etc.	02
Wetland Hydrology Present? Yes _	No	X					-		
Remarks: Upland Point									
VEGETATION – Use scientific names of									
<u>Tree Stratum</u> (Plot size: <u>30</u>)	Absolute % Cover	DominantS pecies?	Indica Statu		Dominance Tes Number of Don That Are OBL, F	ninant Species		0	(A)
1	-		-		Total Number o			1	(B)
Sapling/Shrub Stratum (Plot size: 15)	_ = Total Co	over		Species Across Percent of Dom That Are OBL, F	inant Species			(A/B)
1.					Prevalence Ind	av Markshaat:			
		= Total Co	ver					بيمانيا من	
Herb Stratum (Plot size: 5)	-				Total % Cover o			iply by:	_
1. Zea mays	85%	Υ	UP	1	OBL species	0%	_ x1 _	0.0%	_
,	8376	'	UF	L	FACW species	0%	_ x 2 _	0.0%	_
2			-		FAC species	0%	_ x 3 _	0.0%	_
	85%	= Total Co	ver		FACU species	0%	_ x 4 _	0.0%	_
Woody Vine Stratum (Plot size:	_)				UPL species	85%	_ x 5 _	425.0%	_
					Column Totals:	85.0%	(A)	425%	(B)
1.	-				Prevalence Ir	ndex = B/A =	!	5.00	
		= Total Co	ver		Hydrophytic Ve	egetation Indic	ators:		
					N 1 - Rapid Te	est for Hydroph	ytic Vege	etation	
					N 2 - Domina	nce Test if >509	%		
					N 3 - Prevaler	nce Index is ≤ 3	.0		
					N 4 - Morpho data in Ren N Problemati Indicators of hydr present, unless di	narks or on a se c Hydrophytic \ ic soil and wetl	eperate s Vegetation and hydr	heet) on (Explain)
					Hydrophytic Vegetation Present?	Yes	No	x	
Remarks: Upland cornfield adjecent to wetla	nd.								

Profile Description: (Desc	ribe to the	depth n	eeded t	o document the i	indicator or co	nfirm the a	bsence of indicator		
Depth Ma	atrix			Redox F	eatures				
(inches) Color:	S	%	Col	or: %	Type:	Loc:	Texture:	R	emarks:
0-16 10YR 2/2	2 10	00%					Clay Loam		
Type: C=Concentration, D	=Depletion	, RM=Red	duced M	Natrix, CS=Covere	d or Coated Sa	nd Grains	Location:	PL=Pore Lir	ning, M=Matrix
Hydric Soil Indicators: (Ap							Indicators for Proble		
Histosol (A1)	, pindabie te	J 411 211110		ndy Gleyed Matri			Coast Prairie Red	•	.
Histic Epipedon (A2)				ndy Redox (S5)	IX (34)		Dark Surface (S7	. ,	
Black Histic (A3)				ripped Matrix (S6)		Iron-Manganese		2)
Hydrogen Sulfide (A4	.)			amy Mucky Mine			Very Shallow Da		
Stratified Layers (A5)				amy Gleyed Matr			Other (Explain in		,
2 cm Muck (A10)				epleted Matrix (F3				•	
Depleted Below Dark	Surface (A	11)	Re	dox Dark Surface	(F6)				
Thick Dark Surface (A	(12)		De	epleted Dark Surfa	ace (F7)		Indicators of hydroph	vtic vegetat	ion and
Sandy Mucky Minera	l (S1)		Re	edox Depressions	(F8)		wetland hydrology m disturbed or problem	ust be prese	
Restrictive Layer (if prese	nt):								
Type: None							Hydric Soil Present?	Voc	No. Y
Depth (inches): NA							nyunc son Present:	Yes	NoX
Remarks: Upland									
HYDROLOGY									
Wetland Hydrology Indica	ators								
Primary Indicators (minim		required	; check a	all that apply)			Secondary In	dicators (2 c	or more required
Surface Water (A1)				_Water-Stained L	eaves (B9)		Surface S	oil Cracks (E	36)
High Water Table (A2))			Aquatic Fauna (E	313)		Drainage	Pattern (B1	.0)
Saturation (A3)				_True Aquatic Pla	nts (B14)		Dry-Seas	on Water Ta	able (C2)
Water Marks (B1)				_Hydrogen Sulfid				Burrows (C8	•
Sediment Deposits (B	2)			Oxidized Rhizosph		oots (C3)			erial Imagery (C9)
Drift Deposits (B3)				_Presence of Red	` '	C - : I - /CC)		or Stressed I	` '
Algal Mat or Crust (B4	•)			Recent Iron Red Thin Muck Surfa		Solis (C6)		hic Position tral Test (D5	
Iron Deposits (B5) Inundation Visible on Ae	rial Imagery	(B7)		Gauge or Well D	` '		FAC-Neu	נמו ופגו (טכ))
Sparsely Vegetated Conc	ο,	. ,		Other (Explain in					
				_ ` '	,				
Field Observations:									
Surface Water Present?	Yes	No	X	Depth (inches):	NA				
Water Table Present?	Yes	No	Х	Depth (inches):	NA	Wetland	d Hydrology Present?	Yes	No X
Saturation Present?	Yes	No	Х	Depth (inches):	NA				
(includes capillary fringe)									
Describe Recorded Data (stream gua	ge, moni	toring w	vell, aerial photos	, previous insp	ections), if	available:		
Remarks: No hydrology									

Wetland Hydrology Present? Yes	pical for this blogy No blogy No map show	time of year? significantly naturally pro ing sampli	Sec Local re Long: Yes disturb oblema	Stition, Town elief (conca X ped? Are stic? (if	ate: SD aship, Range: ave, convex, none) N' No (if re "Normal Circums needed, explain in ions, transects, apled Area	Sampl : Convex Datur WI classification: o, explain in Ren tances" present	m: NAD83 narks.) Yes X eautres, etc.	
Remarks: PEM VEGETATION – Use scientific names of Tree Stratum (Plot size: 30)	plants Absolute % Cover	DominantS pecies?	Indica Status		Dominance Te Number of Dor That Are OBL, F	ninant Species	2	(A)
1 (Plot size: 15)	= Total Co	ver		Total Number of Species Across Percent of Dom That Are OBL, F	of Dominant All Strata: ninant Species	100.0%	(B) (A/B)
1. Herb Stratum (Plot size: 5) 1. Phalaris arundinacea 2. Persicaria pensylvanica 3. Asclepias speciosa 4. Woody Vine Stratum (Plot size: 15	60% 45% 8% 113%	Y Y N = Total Cov	FAC'	W	Prevalence Ind Total % Cover of OBL species FACW species FAC species FACU species UPL species Column Totals: Prevalence In	0% 105% 8% 0% 0% 113.0%	Multiply by: x 1	% % %
1.		_ = Total Co	ver		Y 1 - Rapid To Y 2 - Domina Y 3 - Prevalet Y 4 - Morpho data in Ren		tic Vegetation ons (Provide suberate sheet) egetation (Expland hydrology nematic	ain)
Remarks:								

Profile Description: (Desc	ribe to the c	depth ne	eeded to	document the i	indicator or co	nfirm the a	bsence of indicator	
Depth Ma	ntrix			Redox F	Features			
(inches) Color:	%		Colo	r: %	Type:	Loc:	Texture:	Remarks:
0-16 10YR 2/1	100	1%					Clay Loam	
Type: C=Concentration, D	=Depletion,	RM=Rec	duced M	atrix, CS=Covere	d or Coated Sa	nd Grains	Location:	PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (Ap	policable to	all LRRs.	. unless	otherwise noted	d.)		Indicators for Probler	natic Hydric Soils
Histosol (A1)			Sar	ndy Gleyed Matri			Coast Prairie Red	oc (A16)
Histic Epipedon (A2)				ndy Redox (S5)			Dark Surface (S7)	
Black Histic (A3)	`			ipped Matrix (S6			Iron-Manganese	
Hydrogen Sulfide (A4)			amy Mucky Mine			Very Shallow Dar	
Stratified Layers (A5)				nmy Gleyed Matr			Other (Explain in	Remarks)
2 cm Muck (A10) Depleted Below Dark	Surface /A1	1\		pleted Matrix (F3 dox Dark Surface				
X Thick Dark Surface (A		1)		pleted Dark Surface				
Sandy Mucky Minera	-			dox Depressions			Indicators of hydroph wetland hydrology mu disturbed or problema	ust be present, unless
Restrictive Layer (if prese	nt):							
Type: None							Hydric Soil Present?	Yes X No
Depth (inches): NA			_				•	
Remarks:								
HYDROLOGY								
Wetland Hydrology Indica	ators							
Primary Indicators (minim	um of one re	equired;	; check a	ll that apply)			Secondary Inc	dicators (2 or more required)
Surface Water (A1)				Water-Stained L	.eaves (B9)		Surface S	oil Cracks (B6)
High Water Table (A2)	ı			Aquatic Fauna (B13)		Drainage	Pattern (B10)
X Saturation (A3)				True Aquatic Pla	nts (B14)		Dry-Seaso	on Water Table (C2)
Water Marks (B1)				Hydrogen Sulfid	, ,			Burrows (C8)
Sediment Deposits (B2	2)			Oxidized Rhizosph	eres on Living Ro	oots (C3)	Saturation	Visible on Aerial Imagery (C9)
Drift Deposits (B3)				Presence of Red	luced Iron (C4)		Stunted o	r Stressed Plants (D1)
Algal Mat or Crust (B4)			Recent Iron Red		Soils (C6)		hic Position (D2)
Iron Deposits (B5)				Thin Muck Surfa	` '		X_FAC-Neut	ral Test (D5)
Inundation Visible on Ae		•		Gauge or Well D				
Sparsely Vegetated Conc	ave Surface (E	38)		Other (Explain ir	n Remarks)			
Field Observations:								
Surface Water Present?	Yes	No	Χ	Depth (inches):	NA			
Water Table Present?	Yes			Depth (inches):	NA	Wetland	d Hydrology Present?	Yes X No
Saturation Present?	Yes X			Depth (inches):	8	vvctialit	a myanology Frescrit:	163 <u>A</u> NU
(includes capillary fringe)				/-				
Describe Recorded Data (s	tream guage	e, monit	toring w	ell, aerial photos	, previous insp	ections), if	available:	
Remarks:								

Project/Site: Tatanka Ridge Wind Project		City/County:	Deuel Cou	nty	Sampli	ing Date: 7/3	31/2018
Applicant/Owner: Buffalo Ridge III, LLC				State: SD			2004
Investigator(s): E. Schwartz, P. Swartzinski			Section, To	wnship, Range:			
Landform (hillslope, terrace, etc.): depression	n	Loc	al relief (cor	ncave, convex, none):	Linear Slope	2	
Slope (%): <5% Lat:		Loi	ng:		Datun	n: NAD83	
Soil Map Unit Name:				NWI	classification:		
Are climatic/hydrologic conditions on the site ty					explain in Rem		
Are Vegetation No , Soil No , or Hydro						Yes X	No
Are Vegetation No , Soil No , or Hydro	ology No	naturally probl	ematic? ((if needed, explain in Re	marks.)		
SUMMARY OF FINDINGS – Attach site	•	• •	point loca	ations, transects, in	nportant fe	autres, etc.	
Hydrophytic Vegetation Present? Yes _	No.	X					
Hydric Soil Present? Yes	No	X		ampled Area a Wetland?	es No	. X	
Wetland Hydrology Present? Yes	No.	X	Within	vvetianu:		· 	
Remarks: Upland							
VEGETATION – Use scientific names of	plants						
Tree Stratum (Plot size: 30)	Absolute % Cover	DominantS In	dicator atus	Dominance Test V	Vorksheet:		
(12111111111111111111111111111111111111	∕₀ COAGI	pecies? St	.atus	Number of Domina That Are OBL, FAC	•	0	(A)
1		= Total Cover		Total Number of D Species Across All		1	(B)
Sapling/Shrub Stratum (Plot size: 15)	= 10tai covei		Percent of Domina	ant Species	0.0%	(A/B)
1.				That Are OBL, FAC		0.070	(,,,,,,
		= Total Cover		Prevalence Index	Worksheet:		
Hode Street van / Plat sings - 5		= 10tal cover		Total % Cover of:		Multiply by:	
Herb Stratum (Plot size: 5)				OBL species	0%	x 1 0.0%	<u> </u>
1. Bromus inermis	85%		FACU	FACW species	0%	x 2 0.0%	
2. Asclepias speciosa	5%	N	FAC	FAC species	5%	x 3 15.0%	6
3. Helianthus maximiliani	5%	N	UPL	FACU species	85%	x 4 340.09	%
4				UPL species	5%	x 5 25.0%	
	95%	= Total Cover		Column Totals:		-	
Woody Vine Stratum (Plot size: 15	_)			Prevalence Inde	<u> </u>	(A) 380% 4.00	S (B)
1							
1.		= Total Cover		N 1 - Rapid Test			
	-			N 2 - Dominance		-0	
				N 3 - Prevalence			
				N 4 - Morpholog data in Remar N Problematic H Indicators of hydric s present, unless distu	ks or on a sep ydrophytic Ve oil and wetlar	erate sheet) getation (Expland nd hydrology m	ain)
				Hydrophytic Vegetation Present?	Yes	No <u>X</u>	
Remarks: Upland							

Profile Description: (Desc	ribe to the	depth needed	l to docum	ent the in	dicator or co	nfirm the a	bsence of indicator	
Depth Ma	ıtrix			Redox Fe	atures			
(inches) Color:	%		olor:	%	Type:	Loc:	Texture:	Remarks:
0-16 10YR 2/2								
Type: C=Concentration, D	=Depletion,	RM=Reduced	Matrix, CS	=Covered	or Coated Sa	nd Grains	Location: PL=Por	e Lining, M=Matrix
Hydric Soil Indicators: (Ap	plicable to	all LRRs, unle	ss otherwis	se noted.)			Indicators for Problematic H	ydric Soils
Histosol (A1)			Sandy Gleye	ed Matrix	(S4)		Coast Prairie Redoc (A16	5)
Histic Epipedon (A2)			Sandy Redo				Dark Surface (S7)	
Black Histic (A3)			Stripped Ma				Iron-Manganese Masses	
Hydrogen Sulfide (A4)		Loamy Muc				Very Shallow Dark Surfa	
Stratified Layers (A5) 2 cm Muck (A10)			Loamy Gley Depleted M		(FZ)		Other (Explain in Remark	KS)
Depleted Below Dark	Surface (A1		Redox Dark		F6)			
Thick Dark Surface (A			Depleted D				Indicators of hydrophytic year	atation and
Sandy Mucky Minera	•		Redox Depr				Indicators of hydrophytic veg wetland hydrology must be p disturbed or problematic.	
Restrictive Layer (if prese	 nt):							
Type: None							Hydric Soil Present? Yes	No X
Depth (inches): NA	·						Tryune son Tresent.	
Remarks:						Į.		
HYDROLOGY Wetland Hydrology Indica								
Primary Indicators (minim		equired: chec	k all that ar	nnly)			Secondary Indicators	(2 or more required)
Surface Water (A1)	uni oi one i	equired, crice		tained Lea	aves (B9)		Surface Soil Crac	• •
High Water Table (A2)	ł	_		Fauna (B1	• •		Drainage Pattern	` '
Saturation (A3)				uatic Plan			Dry-Season Wate	•
Water Marks (B1)			Hydroge	n Sulfide	Odor (C1)		Crayfish Burrows	(C8)
Sediment Deposits (B	2)	_	Oxidized	Rhizospher	es on Living Ro	oots (C3)	Saturation Visible o	on Aerial Imagery (C9)
Drift Deposits (B3)		_			ced Iron (C4)		Stunted or Stress	` '
Algal Mat or Crust (B4)	_			ction in Tilled	Soils (C6)	Geomorphic Posi	
Iron Deposits (B5) Inundation Visible on Ae	rial Imagery (ick Surface or Well Dat	. ,		FAC-Neutral Test	(D5)
Sparsely Vegetated Cond		•	_	xplain in F				
	·	·			,			
						1		
Field Observations: Surface Water Present?	Yes	No X	Depth (i	nches):	NA			
Water Table Present?	·	No X	='	•	NA	Wetland	I Hydrology Present? Yes	No X
Saturation Present?	· · · · · · · · · · · · · · · · · · ·	No X		•	NA	vvetiailt	inyurology rieschit: 185	140X
(includes capillary fringe)								
Describe Recorded Data (tream guag	ge, monitoring	well, aeria	l photos, p	orevious insp	ections), if a	available:	
Remarks:								

Project/Site: Tatanka Ridge Wind Project		City/Cour	nty: <u>De</u> ı				ling Date:	-	/2018
Applicant/Owner: Buffalo Ridge III, LLC					ate: SD	Samp	ling Point	: <u>DP00</u>	05
Investigator(s): E. Schwartz, P. Swartzinski					nship, Range:		,,		
Landform (hillslope, terrace, etc.): depression	on	_			ive, convex, none)				
Slope (%): <5% Lat:			Long: _				m: NAD8	33	
Soil Map Unit Name:			2 1/			WI classification:			
Are climatic/hydrologic conditions on the site ty			_			no, explain in Rer	•	v	NI -
Are Vegetation No , Soil No , or Hydro							? Yes	X	No
Are Vegetation No , Soil No , or Hydro					needed, explain ir				
SUMMARY OF FINDINGS – Attach site	map show	ing sampli	ng poir	nt locati	ons, transects	, important fe	autres,	etc.	
Hydrophytic Vegetation Present? Yes _	X No								
Hydric Soil Present? Yes	X No				pled Area	Vac V N	_		
Wetland Hydrology Present? Yes	X No		V	within a W	/etland?	Yes X N	J	=	
Remarks:									
PEM									
VEGETATION – Use scientific names of	plants								
T 0: 1 /DL : 00	Absolute	DominantS	Indicat	tor	Dominance Te	st Worksheet:			
<u>Tree Stratum</u> (Plot size: <u>30</u>)	% Cover	pecies?	Status		Number of Dor	minant Species			
					That Are OBL, I	•		1	(A)
1					Total Number				
		= Total Co	ver		Species Across			1	(B)
Sapling/Shrub Stratum (Plot size: 15	1				Percent of Don	ninant Species			
Sapinig/Siliab Stratum (Flot size. 15	/				That Are OBL, I	•	100	0.0%	(A/B)
1.					Prevalence Ind	ex Worksheet:			
		= Total Co	ver				N 4 I ± :	l la	
Horb Stratum (Blot size: E	-				Total % Cover of		Multip		_
Herb Stratum (Plot size: 5)					OBL species	25%	x 1	25.0%	<u>—</u>
1. Phalaris arundinacea	60%	Υ	FACW		FACW species	70%	x 2	140.0%	
2. Eleocharis palustris	15%	N	OBL		FAC species	5%	x 3	15.0%	
3. Typha angustifolia	10%	N	OBL		FACU species	0%	x 4	0.0%	
4. Spartina pectinata	10%	N	FACW		UPL species	0%	x 5	0.0%	
5. Asclepias speciosa	5%	N	FAC		·				(D)
6					Column Totals:		(A)	180%	(B)
	100%	= Total Co	ver		Prevalence I	ndex = B/A =	1.	80	_
Woody Vine Stratum (Plot size: 15)				Hydrophytic V	egetation Indica	tors:		
					Y 1 - Rapid T	est for Hydrophy	tic Veget	ation	
1					· ·	nce Test if >50%	Ū		
		= Total Co	ver			nce Index is ≤ 3.0			
								مميية ماء:	ortina
						ological Adaptation narks or on a seg			orting
						ic Hydrophytic V)
					Indicators of hydi		-		-
					present, unless d		•	0,	
					Hydrophytic				
					Vegetation				
					Present?	Yes X	No		
Pomarks: DEM									
Remarks: PEM									

Profile Description: (De	escribe to	the de	pth needed	to docun	nent the in	dicator or co	nfirm the a	bsence of indicator	
Depth	Matrix				Redox Fe	atures			
(inches) Colo	r:	%		olor:	%	Type:	Loc:	Texture:	Remarks:
0-16 10YR		108%						Clay Loam	2 INCHES OM AT SURFACE
Type: C=Concentration	D=Deple	tion, RN	∕I=Reduced	Matrix, C	S=Covered	or Coated Sa	nd Grains	Locatio	on: PL=Pore Lining, M=Matrix
Hydric Soil Indicators:	Applicab	le to all	LRRs, unle	ss otherw	vise noted.)			Indicators for Prob	lematic Hydric Soils
Histosol (A1) Histic Epipedon (A Black Histic (A3) Hydrogen Sulfide (Stratified Layers (A 2 cm Muck (A10) Depleted Below D X Thick Dark Surface Sandy Mucky Mine	A4) A5) ark Surfac (A12)	ce (A11)		Sandy Rec Stripped N Loamy Mu Loamy Gle Depleted Redox Dar Depleted	yed Matrix dox (S5) Matrix (S6) ucky Minera eyed Matrix Matrix (F3) rk Surface (I Dark Surfac pressions (F	al (F1) (F2) F6) se (F7)		Very Shallow Other (Explain	sse Masses (F12) Dark Surface (TF12) in Remarks) phytic vegetation and must be present, unless
Restrictive Layer (if pre Type: None Depth (inches):	esent):							Hydric Soil Present	t? Yes <u>X</u> No
Remarks:									
HYDROLOGY									
Wetland Hydrology Inc	licators								
Primary Indicators (min X Surface Water (A1) X High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B2) Iron Deposits (B5) Inundation Visible on Sparsely Vegetated Ca	A2) (B2) B4) Aerial Ima	gery (B7	- - - - -	Water- Aquati True A Hydrog Oxidized Presen Recent Thin M Gauge	-Stained Lea c Fauna (B1 quatic Plan gen Sulfide d Rhizospher ce of Reduc	ts (B14) Odor (C1) res on Living Ro ced Iron (C4) ction in Tilled e (C7) ta (D9)		Surfac Draina Dry-Se Crayfis Saturat X Geome	Indicators (2 or more required) e Soil Cracks (B6) ge Pattern (B10) ason Water Table (C2) th Burrows (C8) ion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2) eutral Test (D5)
Field Observations: Surface Water Present	' Yes	X	No	Depth	(inches):	1			
Water Table Present? Saturation Present? (includes capillary fring	Yes e)	X	No	Depth	(inches): (inches):	0		d Hydrology Present	? Yes <u>X</u> No
Describe Recorded Dat	a (stream	guage,	monitoring	well, aeri	al photos, p	orevious insp	ections), if	available:	
Remarks:									

Project/Site: Tatanka Ridge Wind Project		City/Cour	nty: Deuel (County		Samp	ling Dat	te: 7/31	/2018
Applicant/Owner: Buffalo Ridge III, LLC				Stat	e: SD	 Samp	ling Poi	nt: DP0	06
Investigator(s): E. Schwartz, P. Swartzinski			Section	, Townsl	nip, Range:		, ,		
Landform (hillslope, terrace, etc.): depression	on	I	Local relief	(concave	e, convex, none):	Linear Slo	эе		
Slope (%): <5% Lat:			Long:			Datu	ım: NA	D83	
Soil Map Unit Name:			· · · · · · · · · · · · · · · · · · ·		NV	VI classification	:		
Are climatic/hydrologic conditions on the site ty	pical for this	time of year?	? Yes	X N	o(if n	o, explain in Re	marks.)		
Are Vegetation No , Soil No , or Hydro	ology No	significantly	disturbed?	Are "	Normal Circumst	tances" presen	t? Yes	X	No
Are Vegetation <u>No</u> , Soil <u>No</u> , or Hydr	ology No	naturally pr	oblematic?	(if ne	eded, explain in	Remarks.)			
SUMMARY OF FINDINGS – Attach site		ing sampli	ng point l	ocatio	ns, transects,	important f	eautre	s, etc.	
Hydrophytic Vegetation Present? Yes _	No	X							
Hydric Soil Present? Yes _	No	X		e Sampl iin a We	ed Area	Yes N	lo X		
Wetland Hydrology Present? Yes _	No	X	With	iii a vve	uanu:				
Remarks: Upland									
VEGETATION – Use scientific names of	•								
Tree Stratum (Plot size: 30)	Absolute % Cover	DominantS pecies?	Indicator Status		Dominance Tes	t Worksheet:			
<u></u> (1.1000)	% Cover	pecies:	Status		Number of Dom That Are OBL, F	•		1	(A)
1		= Total Co	ver	-	Total Number o			3	(B)
Sapling/Shrub Stratum (Plot size: 15)				Percent of Dom That Are OBL, F	•		33.3%	(A/B)
1				_	Prevalence Inde	ex Worksheet:			
		= Total Co	ver		Total % Cover o	f:	Mult	iply by:	
Herb Stratum (Plot size: 5)					OBL species	5%	x 1	5.0%	_
1. Bromus inermis	30%	Υ	FACU		FACW species	0%	-	0.0%	
2. Poa pratensis	10%	Υ	FAC		•	=======================================	x 2		
3. Helianthus maximiliani	10%	Υ	UPL	-	FAC species	15%	x 3	45.0%	
4. Hordeum jubatum	5%	N	FAC	-	FACU species	30%	x 4	120.0%	
5. Calamagrostis canadensis	5%	N	OBL	-	UPL species	10%	x 5	50.0%	
6.				=	Column Totals:	60.0%	(A)	220%	(B)
0.	60%	= Total Co	ver	-	Prevalence In	idex = B/A =	- -	3.67	
Woody Vine Stratum (Plot size: 15)		vei		Hydrophytic Ve	getation Indica	tors:		
. ,					N 1 - Rapid Te			atation	
1				_ -				etation	
		= Total Co	ver	-	N 2 - Dominar N 3 - Prevalen				
					N 4 - Morphol data in Rem N Problematio dicators of hydri resent, unless dis	narks or on a se C Hydrophytic V c soil and wetla	perate s egetation and hyd	sheet) on (Explair rology mu	n)
					Hydrophytic Vegetation Present?	Yes	_No	x	
Remarks: Upland				<u> </u>					

Surface Water (A1)	Inches Color: % Color: % Type: Loc: Texture: Remarks: Coly Loam Color Load	rofile Description: (Des		·									
O-16 10YR 2/2 100% Clay Loam Clay Load Clay Loam Clay Loam Clay Loam Clay Loam Clay Loam Clay Load Clay Loam Clay Load Clay Loam Clay Load Clay Load Clay Loam Clay Load Clay Load Clay Load Clay Load Clay Load Clay Load Coast Prairie Redoc (A16) Dark Surface (77) Coast Prairie Redoc (A16) Dark Surface (77) Coast Prairie Redoc (A16) Coast Prairie Redoc (A16) Dark Surface (A12) Other (Explain in Remarks) Clay Load Coast Prairie Redox Clay Clay Load Clay Load Coast Prairie Redox Clay Coast Prairie Redox Clay Coast Prairie Redox Clay Coast Prairie Redox Clay Clay Load Clay Load Coast Prairie Redox Clay Clay Load Clay	O-16 10YR 2/2 100% Clay Loam Clay Load Clay Loam Clay Loam Clay Loam Clay Loam Clay Loam Clay Load Clay Loam Clay Load Clay Loam Clay Load Clay Load Clay Loam Clay Load Clay Load Clay Load Clay Load Clay Load Clay Load Coast Prairie Redoc (A16) Dark Surface (77) Coast Prairie Redoc (A16) Dark Surface (77) Coast Prairie Redoc (A16) Coast Prairie Redoc (A16) Dark Surface (A12) Other (Explain in Remarks) Clay Load Coast Prairie Redox Clay Clay Load Clay Load Coast Prairie Redox Clay Coast Prairie Redox Clay Coast Prairie Redox Clay Coast Prairie Redox Clay Clay Load Clay Load Coast Prairie Redox Clay Clay Load Clay	:l\			C-1					dure.	Г	Remarks	
ppe: C-Concentration, D-Depletion, RM-Reduced Matrix, CS-Covered or Coated Sand Grains Location: PL-Pore Lining, M-Matrix pdric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Gleyed Matrix (S6) Black Histic (A2) Sandy Redox (S5) Black Histic (A3) Stripped Matrix (S6) Loamy Mucky Mineral (F1) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Below Dark Surface (A11) Redox Depressions (F8) ### Continue of the Continue	ppe: C-Concentration, D-Depletion, RM-Reduced Matrix, CS-Covered or Coated Sand Grains Location: PL-Pore Lining, M-Matrix pdric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Gleyed Matrix (S6) Black Histic (A2) Sandy Redox (S5) Black Histic (A3) Stripped Matrix (S6) Loamy Mucky Mineral (F1) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Below Dark Surface (A11) Redox Depressions (F8) ### Continue of the Continue		• •		Color:		Iype:	Loc:			<u>'</u>	(Ciliai K3	•
rincis Soil Indicators (Applicable to all LRRs, unless otherwise noted.) Histosoil (A1)	rincis Soil Indicators (Applicable to all LRRs, unless otherwise noted.) Histosoil (A1)	0-16 10YR 2,	/2 100	0%					Clay	/ Loam			
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Black Histic (A3)	Black Histic (A3)	Histosol (A1)		_	Sandy	Gleyed Matri	ix (S4)		Coast	Prairie Red	loc (A16)		
Hydrogen Sulfide (AA) Stratified Layers (A5) Loamy Mucky Mineral (F1) Depleted Matrix (F2) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Depleted Below Dark Surface (A11) Redox Dark Surface (F7) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. setrictive Layer (If present): Type: None Depth (inches): NA water Stained Leaves (B9) Aquatic Fauna (B13) Surface Water (A1) Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation (Visible on Aerial Imagery (C9) Sparsely Vegetated Concave Surface (B8) Presence of Reduced Iron (C4) Sparsely Vegetated Concave Surface (B8) Presence Reduced Iron (C4) Gryphia Burrows (C8) Other (Explain in Remarks) Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA	Hydrogen Sulfide (AA) Stratified Layers (A5) Loamy Mucky Mineral (F1) Depleted Matrix (F2) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Depleted Below Dark Surface (A11) Redox Dark Surface (F7) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. setrictive Layer (If present): Type: None Depth (inches): NA water Stained Leaves (B9) Aquatic Fauna (B13) Surface Water (A1) Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation (Visible on Aerial Imagery (C9) Sparsely Vegetated Concave Surface (B8) Presence of Reduced Iron (C4) Sparsely Vegetated Concave Surface (B8) Presence Reduced Iron (C4) Gryphia Burrows (C8) Other (Explain in Remarks) Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA	Histic Epipedon (A2)	-									
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2 cm Muck (A10)	2 cm Muck (A10)											TF12)	
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Popth (inches): NA	PATTICHE Layer (if present): Type: None Depth (inches): NA WARPOLOGY Wetland Hydrology Indicators Financy Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Water Marks (B1) Water Marks (B1) Algal Mat or Crust (B4) Algal Mat o		•	-					wetland hy	ydrology mi	ust be pres		SS
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Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Gauge or Well Data (D9) Other (Explain in Remarks) ield Observations: urface Water Present? Yes No X Depth (inches): NA Vater Table Present? Yes No X Depth (inches): NA urface Water Present? Yes No X Depth (inches): NA Vater Table Present? Yes No X Depth (inches): NA includes capillary fringe) Wetland Hydrology Present? Yes No X Includes Capillary fringe)	Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) ield Observations: urface Water Present? Yes No X Depth (inches): NA Vater Table Present? Yes No X Depth (inches): NA aturation Present? Yes No X Depth (inches): NA ncludes capillary fringe) Gauge or Well Data (D9) Other (Explain in Remarks) Wetland Hydrology Present? Yes No X Wetland Hydrology Present? Yes No X NA	Vetland Hydrology Indi rimary Indicators (minir Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3)	mum of one i 2) 32)	required;	— Wa Aqı Tru Hyı Oxi — Pre	nter-Stained L uatic Fauna (E le Aquatic Pla drogen Sulfid dized Rhizosph esence of Red	313) ints (B14) e Odor (C1) eres on Living Ro uced Iron (C4)		Se	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Surface Surf	oil Cracks (Pattern (B: on Water T Burrows (CE Visible on A or Stressed	B6) 10) able (C2) 3) erial Imag Plants (D	ery (C9)
ield Observations: urface Water Present? Yes No _X _ Depth (inches): _NA Vater Table Present? Yes No _X _ Depth (inches): _NA aturation Present? Yes No _X _ Depth (inches): _NA includes capillary fringe)	ield Observations: urface Water Present? Yes No _X _ Depth (inches): _NA Vater Table Present? Yes No _X _ Depth (inches): _NA aturation Present? Yes No _X _ Depth (inches): _NA aturation Present? Yes No _X _ Depth (inches): _NA ncludes capillary fringe)	Vetland Hydrology Indi rimary Indicators (minir Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (E	mum of one i 2) 32)	required;	— Wa Aqı Tru Hyo Oxi Pre Rec	nter-Stained L uatic Fauna (B ie Aquatic Pla drogen Sulfid dized Rhizosph esence of Red cent Iron Red	313) Ints (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled		Se	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (Pattern (B: on Water T Burrows (CE Visible on A or Stressed hic Position	B6) 10) able (C2) 3) erial Imag Plants (D n (D2)	ery (C9)
urface Water Present? Yes No X Depth (inches): NA Vater Table Present? Yes No X Depth (inches): NA aturation Present? Yes No X Depth (inches): NA includes capillary fringe) Wetland Hydrology Present? Yes No X includes Capillary fringe)	urface Water Present? Yes No X Depth (inches): NA Vater Table Present? Yes No X Depth (inches): NA aturation Present? Yes No X Depth (inches): NA ncludes capillary fringe) Wetland Hydrology Present? Yes No X NO X	Vetland Hydrology Indi rimary Indicators (minir Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B1 Iron Deposits (B5)	mum of one i 2) 32) 4)		Ma Aqı Tru Hyu Oxi Pre Rec	ater-Stained L uatic Fauna (E de Aquatic Pla drogen Sulfid dized Rhizosph desence of Red cent Iron Red n Muck Surfa	313) Ints (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7)		Se	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (Pattern (B: on Water T Burrows (CE Visible on A or Stressed hic Position	B6) 10) able (C2) 3) erial Imag Plants (D n (D2)	ery (C9)
urface Water Present? Yes No X Depth (inches): NA Vater Table Present? Yes No X Depth (inches): NA aturation Present? Yes No X Depth (inches): NA ncludes capillary fringe) Wetland Hydrology Present? Yes No X NO X	urface Water Present? Yes No X Depth (inches): NA Vater Table Present? Yes No X Depth (inches): NA aturation Present? Yes No X Depth (inches): NA ncludes capillary fringe) Wetland Hydrology Present? Yes No X NO X	Vetland Hydrology Indi rimary Indicators (minir Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Inundation Visible on A	mum of one i 2) 32) 4) erial Imagery ((B7)	Ma Aqı Tru Myı Oxi Pre Rec Thi	ater-Stained L uatic Fauna (E e Aquatic Pla drogen Sulfid dized Rhizosph esence of Red cent Iron Red n Muck Surfa uge or Well D	ants (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) atta (D9)		Se	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (Pattern (B: on Water T Burrows (CE Visible on A or Stressed hic Position	B6) 10) able (C2) 3) erial Imag Plants (D n (D2)	ery (C9)
Vater Table Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X ncludes capillary fringe)	Vater Table Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA noludes capillary fringe)	Vetland Hydrology Indi rimary Indicators (minir Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Inundation Visible on A Sparsely Vegetated Con	mum of one i 2) 32) 4) erial Imagery ((B7)	Ma Aqı Tru Myı Oxi Pre Rec Thi	ater-Stained L uatic Fauna (E e Aquatic Pla drogen Sulfid dized Rhizosph esence of Red cent Iron Red n Muck Surfa uge or Well D	ants (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) atta (D9)		Se	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (Pattern (B: on Water T Burrows (CE Visible on A or Stressed hic Position	B6) 10) able (C2) 3) erial Imag Plants (D n (D2)	ery (C9)
aturation Present? Yes No X Depth (inches): NA	aturation Present? Yes No X Depth (inches): NA	Vetland Hydrology Indi rimary Indicators (minir Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B1) Iron Deposits (B5) Inundation Visible on A Sparsely Vegetated Con	mum of one i 2) 32) 4) erial Imagery (ncave Surface ((B7) (B8)	Ma Aqı Tru Hyy Oxi Pre Rec Thi Gai	ater-Stained L uatic Fauna (E de Aquatic Pla drogen Sulfid dized Rhizosph esence of Red cent Iron Red n Muck Surfa uge or Well D ner (Explain ir	ants (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) eata (D9) n Remarks)		Se	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (Pattern (B: on Water T Burrows (CE Visible on A or Stressed hic Position	B6) 10) able (C2) 3) erial Imag Plants (D n (D2)	ery (C9)
ncludes capillary fringe)	ncludes capillary fringe)	Vetland Hydrology Indi rimary Indicators (mining Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Inundation Visible on A Sparsely Vegetated Continued Continue	mum of one i 2) 32) 4) erial Imagery (neave Surface ((B7) (B8)	Ma Aqı Tru Ayı Oxi Pre Rec Oth	ater-Stained L uatic Fauna (E de Aquatic Pla drogen Sulfid dized Rhizosph esence of Red cent Iron Red n Muck Surfa uge or Well D ner (Explain in	ants (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) hata (D9) n Remarks)	Soils (C6)		Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp FAC-Neut	oil Cracks (Pattern (B: Pattern (B: Pattern (B: Pattern (C: Patte	B6) 10) able (C2) B) erial Imag Plants (D n (D2) 5)	ery (C9)
accring Recorded Data Ictroam duade, monitoring Well, agrial photoc, provious inspections), it availables	escribe necoraeu data (stream guage, monitoring wen, aenai photos, previous inspections), il avallable: 	Vetland Hydrology Indi rimary Indicators (minir Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Inundation Visible on A Sparsely Vegetated Con ield Observations: urface Water Present?	num of one (2) 32) 44) erial Imagery (1) ncave Surface (1) Yes Yes	(B7) (B8) No No	Wa Aqq Tru Hyu Oxi Pre Reu Thi Gar Oth	ater-Stained L uatic Fauna (E uatic Fauna (E uatic Pla drogen Sulfid- dized Rhizosph esence of Red cent Iron Red n Muck Surfa uge or Well D ner (Explain ir	ants (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) eata (D9) n Remarks)	Soils (C6)		Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp FAC-Neut	oil Cracks (Pattern (B: Pattern (B: Pattern (B: Pattern (C: Patte	B6) 10) able (C2) B) erial Imag Plants (D n (D2) 5)	ery (C9)

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC Investigator(s): E. Schwartz, P. Swartzinski Landform (hillslope, terrace, etc.): depression Slope (%): <5% Lat: Soil Map Unit Name: Are climatic/hydrologic conditions on the site ty Are Vegetation No , Soil No , or Hydron Are Vegetation No , Soil No , or Hydron	rpical for this ology No	time of year	Section Sec	on, Tow ef (cond X ed? A	state: SD vnship, Range: cave, convex, none): NW No (if no	Convex Datu /I classification o, explain in Relances" present	marks.)	DP00	07
SUMMARY OF FINDINGS – Attach site			ng poin	t loca	tions, transects,	important fe	eautres	, etc.	
			le	the Sa	mpled Area				
						Yes X N	о		
Wetland Hydrology Present? Yes _	X No								
Remarks: PEM									
VEGETATION – Use scientific names of	plants				104				
<u>Tree Stratum</u> (Plot size: <u>30</u>)	Absolute % Cover	DominantS pecies?	Indicato Status	or	Dominance Test Number of Dom That Are OBL, FA	inant Species ACW, or FAC:		1	(A)
1		= Total Co	·····		Total Number of Species Across A			1	(B)
Sapling/Shrub Stratum (Plot size: 15)	= 10tal Co	ver		Percent of Domi That Are OBL, FA	nant Species	10		(A/B)
1					Prevalence Inde	x Worksheet:			
		= Total Co	ver		Total % Cover of		Multip	ılv bv:	
Herb Stratum (Plot size: 5)					OBL species	0%	x 1	0.0%	_
Phalaris arundinacea	70%	Υ	FACW	,	FACW species	75%		150.0%	_
2. Persicaria pensylvanica	5%	N	FACW	<u>'</u>	FAC species	0%	x 3	0.0%	_
3		<u> </u>			FACU species	0%	x 4	0.0%	_
	75%	= Total Co	ver		UPL species	0%	лт <u>—</u> х5	0.0%	_
Woody Vine Stratum (Plot size: 15	_)				Column Totals:		(A)	150%	(B)
-					Prevalence In	-		.00	_ (b)
1					Frevalence III	иех – Б/А –		.00	
		= Total Co	ver		Hydrophytic Ve	getation Indica	tors:		
					Y 1 - Rapid Te	st for Hydrophy	tic Veget	ation	
					Y 2 - Dominan	ce Test if >50%	ı		
					Y 3 - Prevalen	ce Index is ≤ 3.0)		
					Y 4 - Morphologia data in Rem N Problematic Indicators of hydric present, unless dis	arks or on a sep Hydrophytic V c soil and wetla	perate sh egetatior nd hydro	eet) ı (Explain	n)
					Hydrophytic Vegetation Present?	Yes X	No		
Remarks: PEM									

Depth	Matrix					Redox F	eatures					5 '
inches)	Color:	%		Co	lor:	%	Type:	Loc:	Tex	xture:		Remarks:
0-16	10YR 2/1	100	%						Clay	y Loam 🤰	2 in OM A	AT SURFACE
pe: C=Concent	ration, D=Dep	oletion, F	RM=Red	duced N	Matrix, CS	=Covered	d or Coated S	and Grains		Location	: PL=Pore	Lining, M=Matrix
ydric Soil Indica	ators: (Applic	able to a	all LRRs	, unles	s otherwis	se noted.	.)		Indicators	for Proble	matic Hyd	lric Soils
X Thick Dark S	don (A2) (A3) ulfide (A4) yyers (A5) (A10) elow Dark Sur		1)	Si Si Li	andy Gleyo andy Redo tripped Mic pamy Muc pamy Gley epleted M edox Dark epleted De edox Depr	ox (S5) atrix (S6) ky Miner red Matri latrix (F3 Surface ark Surfa	ral (F1) x (F2)) (F6) ce (F7)		Dark Iron-l Very Other	t Prairie Red Surface (S7 Manganese Shallow Da r (Explain ir of hydroph ydrology m or problem) Masses (I rk Surface Remarks ytic veget ust be pre	(TF12))
estrictive Layer Type: NONE Depth (inche	E									l Present?	Yes _	X No
emarks:								ı				
	ogy Indicators	3										
etland Hydrolo			equired	; check	all that ap	oply)			Se	econdary In	dicators (2	2 or more require
etland Hydrolo	rs (minimum o		equired	; check			eaves (B9)		Se	•	dicators (2 Soil Cracks	
etland Hydrolo	rs (minimum o er (A1)		equired	; check	Water-S		. ,		Se	Surface S	-	(B6)
retland Hydrolo Timary Indicator Surface Wate High Water T	rs (minimum o er (A1) Fable (A2)		equired	; check	Water-S Aquatic	tained Le	13)		Se	Surface S Drainage	oil Cracks Pattern (I	(B6)
retland Hydrolo Timary Indicator Surface Wate High Water T	rs (minimum o er (A1) Fable (A2) A3)		equired	; check 	Water-S Aquatic True Aquatic Hydroge	tained Le Fauna (B uatic Plar en Sulfide	13) nts (B14) e Odor (C1)		Se	Surface S Drainage Dry-Seas Crayfish	oil Cracks Pattern (I on Water Burrows (G	(B6) B10) Table (C2) C8)
Yetland Hydrolo Timary Indicator Surface Wate High Water T C Saturation (A	rs (minimum o er (A1) Fable (A2) A3) s (B1)		equired	; check 	Water-S Aquatic True Aquatic Hydroge	tained Le Fauna (B uatic Plar en Sulfide	13) nts (B14)	Roots (C3)	Se	Surface S Drainage Dry-Seas Crayfish Saturation	oil Cracks Pattern (I on Water Burrows (I on Visible on	(B6) B10) Table (C2) C8) Aerial Imagery (C9)
Vetland Hydrolo rimary Indicator Surface Water High Water T Saturation (A Water Marks Sediment De Drift Deposit	rs (minimum of er (A1) Table (A2) A3) s (B1) eposits (B2) ss (B3)		equired	; check	Water-S Aquatic True Aqu Hydroge Oxidized Presence	tained Le Fauna (B uatic Plar en Sulfide Rhizosphe e of Redu	13) hts (B14) Hodor (C1) heres on Living R huced Iron (C4))	- - - -	Surface S Drainage Dry-Seas Crayfish Saturation Stunted	soil Cracks Pattern (I on Water Burrows (I on Visible on or Stresse	(B6) B10) Table (C2) C8) Aerial Imagery (C9) d Plants (D1)
/etland Hydrolo rimary Indicator Surface Water High Water T Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or	rs (minimum of er (A1) Fable (A2) A3) s (B1) eposits (B2) es (B3) Crust (B4)		equired	; check 	Water-S Aquatic True Aq Hydroge Oxidized Presence Recent I	tained Le Fauna (B uatic Plar en Sulfide Rhizosphe e of Redu ron Redu	13) hts (B14) c Odor (C1) eres on Living F uced Iron (C4 uction in Tille)		Surface S Drainage Dry-Seas Crayfish Saturation Stunted (Geomorp	Goil Cracks Pattern (I on Water Burrows (G o Visible on or Stressed bhic Positic	(B6) B10) Table (C2) C8) Aerial Imagery (C9) d Plants (D1) on (D2)
High Water T X Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposits Inundation Vis	rs (minimum of er (A1) Fable (A2) A3) s (B1) eposits (B2) es (B3) Crust (B4)	of one re	37)	; check	Water-S Aquatic True Aq Hydroge Oxidized Presence Recent I Thin Mu Gauge o	tained Le Fauna (B uatic Plar en Sulfide Rhizosphe e of Redu ron Redu ick Surfac er Well Da	nts (B14) e Odor (C1) eres on Living R uced Iron (C4 action in Tilled ce (C7))		Surface S Drainage Dry-Seas Crayfish Saturation Stunted	Goil Cracks Pattern (I on Water Burrows (G o Visible on or Stressed bhic Positic	(B6) B10) Table (C2) C8) Aerial Imagery (C9) d Plants (D1) on (D2)
Vetland Hydrolo rimary Indicator Surface Water High Water T X Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposits Inundation Vis Sparsely Veget	rs (minimum of er (A1) Table (A2) A3) S (B1) Eposits (B2) Es (B3) Crust (B4) S (B5) Sible on Aerial Intated Concave S	of one re	37)	; check	Water-S Aquatic True Aq Hydroge Oxidized Presence Recent I Thin Mu Gauge o	tained Le Fauna (B uatic Plar en Sulfide Rhizosphe e of Redu ron Redu ick Surfac er Well Da	nts (B14) c Odor (C1) eres on Living R uced Iron (C4 uction in Tilled ce (C7) ata (D9))		Surface S Drainage Dry-Seas Crayfish Saturation Stunted (Geomorp	Goil Cracks Pattern (I on Water Burrows (G o Visible on or Stressed bhic Positic	(B6) B10) Table (C2) C8) Aerial Imagery (C9) d Plants (D1) on (D2)
/etland Hydrolo rimary Indicator Surface Water High Water T Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposits Inundation Vis Sparsely Veget	rs (minimum of er (A1) Fable (A2) A3) S (B1) Eposits (B2) SS (B3) Crust (B4) SS (B5) Sible on Aerial III tated Concave S	of one re magery (B Surface (B		x	Water-S Aquatic True Aq Hydroge Oxidized Presence Recent I Thin Mu Gauge o	tained Le Fauna (B uatic Plan en Sulfide Rhizosphe e of Redu ron Redu ick Surfac er Well Da explain in	nts (B14) c Odor (C1) eres on Living R uced Iron (C4 uction in Tilled ce (C7) ata (D9))		Surface S Drainage Dry-Seas Crayfish Saturation Stunted (Geomorp	Goil Cracks Pattern (I on Water Burrows (G o Visible on or Stressed bhic Positic	(B6) B10) Table (C2) C8) Aerial Imagery (C9) d Plants (D1) on (D2)
Vetland Hydrolo rimary Indicator Surface Water High Water T Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposits Inundation Vis Sparsely Veget	rs (minimum of er (A1) Fable (A2) A3) S (B1) Eposits (B2) SS (B3) Crust (B4) SS (B5) Sible on Aerial III tated Concave S	of one re magery (B Gurface (B		x	Water-S Aquatic True Aqi Hydroge Oxidized Presence Recent I Thin Mu Gauge o Other (E	tained Le Fauna (B uatic Plar en Sulfide Rhizosphe e of Redu ron Redu rck Surfac or Well Da explain in	nts (B14) c Odor (C1) eres on Living R uced Iron (C4 uction in Tilled ce (C7) ata (D9) Remarks)) d Soils (C6)		Surface S Drainage Dry-Seas Crayfish Saturation Stunted (Geomorp	oil Cracks Pattern (I on Water Burrows (G o Visible on or Stressee Ohic Positio tral Test (I	(B6) B10) Table (C2) C8) Aerial Imagery (C9) d Plants (D1) on (D2)
Vetland Hydrolo rimary Indicator Surface Wate High Water T X Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposits Inundation Vis	rs (minimum of er (A1) Fable (A2) A3) S (B1) Eposits (B2) S (B3) Crust (B4) S (B5) Sible on Aerial Intated Concave S Institute (Concave S Institute (Con	of one re magery (B Surface (B			Water-S Aquatic True Aq Hydroge Oxidized Presence Recent I Thin Mu Gauge o Other (E	tained Le Fauna (B uatic Plan en Sulfide Rhizosphe e of Redu ron Redu ick Surfac er Well Da explain in nches):	nts (B14) c Odor (C1) eres on Living R uced Iron (C4 uction in Tilled ce (C7) ata (D9) Remarks)) d Soils (C6)		Surface S Drainage Dry-Seas Crayfish Saturation Stunted (Geomorp	oil Cracks Pattern (I on Water Burrows (G o Visible on or Stressee Ohic Positio tral Test (I	(B6) B10) Table (C2) C8) Aerial Imagery (C9) d Plants (D1) on (D2) D5)

Project/Site: Tatanka Ridge Wind Project		City/Cour	nty: Deu	uel Count	ty	Sar	mpling Da	te: 7/31	/2018
Applicant/Owner: Buffalo Ridge III, LLC		"	' ===		tate: SD		npling Po	-	
Investigator(s): E. Schwartz, P. Swartzinski			Secti		nship, Range:		,,		
Landform (hillslope, terrace, etc.): depress	ion				ave, convex, none	e): Linear S			
Slope (%): <5% Lat:	-				, ,	•	atum: NA	D83	
Soil Map Unit Name:			- 0 _			NWI classificati			
Are climatic/hydrologic conditions on the site t	ypical for this	time of year?	? Yes	Х	No (if	no, explain in	Remarks.)		
Are Vegetation No , Soil No , or Hyd						nstances" prese	ent? Yes	Х	No
Are Vegetation No , Soil No , or Hyd					needed, explain i			·	
SUMMARY OF FINDINGS – Attach site					ions, transects	s, important	feautre	es, etc.	
Hydrophytic Vegetation Present? Yes	No	X							
Hydric Soil Present? Yes	No	Χ			npled Area				
	No	· ·	W	vithin a \	Wetland?	Yes	_No _X		
Remarks:									
Upland Point									
VEGETATION – Use scientific names o	f plants								
	Absolute	DominantS	Indicate	or	Dominance Te	est Worksheet	:		
<u>Tree Stratum</u> (Plot size: <u>30</u>)	% Cover	pecies?	Status						
						minant Specie FACW, or FAC		0	(A)
1.					Total Number				(7
		= Total Co	ver	 ,	Species Across			1	(B)
		= 10tal C0	VEI			minant Species			,
Sapling/Shrub Stratum (Plot size: 15)					FACW, or FAC		0.0%	(A/B)
1.					Drovolonco In	dex Workshee			
		= Total Co	ver						
Haula Churchium (Diataine) E		= 10tal co	VCI		Total % Cover	of:	Mul	tiply by:	
Herb Stratum (Plot size: 5)					OBL species	0%	x 1	0.0%	_
1. Bromus inermis	55%	Υ	FACU	ı	FACW species	0%	x 2	0.0%	
2. Phleum pratense	15%	N	FACU	<u> </u>	FAC species	13%	x 3	39.0%	
3. Poa pratensis	10%	N	FAC		FACU species	70%	x 4	280.0%	
4. Asclepias speciosa	3%	N	FAC				-		
5					UPL species	0%	x 5	0.0%	
	83%	= Total Co	ver		Column Totals	83.0%	(A)	319%	(B)
Woody Vine Stratum (Plot size: 15)				Prevalence	Index = B/A =		3.84	
Woody vine stratam (Flot size. 15	,				Hydrophytic \	/egetation Ind	icators:		
1						Test for Hydron		otation	
		= Total Co	ver		— ·		,	ctation	
		= 10tal co	VCI			ance Test if >5			
					N 3 - Prevale	ence Index is ≤	3.0		
						ological Adapt			orting
						marks or on a			,
						tic Hydrophytic	_		•
					Indicators of hyd present, unless of		•		st be
					present, unless t	disturbed of pr	Oblematic	•	
					Hydrophytic				
					Vegetation	Yes	No	Х	
					Present?			 _	
Remarks: Upland Vegetation					<u> </u>				

Depth Ma	rix			Redox Fe	eatures						
(inches) Color:	%		Color:	%	Type:	Loc:	Tex	ture:	R	emarks:	
0-16 10YR 3/2	100	%					Clay	Loam			
Гуре: C=Concentration, D=	Depletion, F	RM=Reduc	ced Matrix,	. CS=Covered	or Coated San	nd Grains		Location:	PL=Pore Lir	ning, M=I	Matrix
Hydric Soil Indicators: (Ap	olicable to a	all LRRs. u	nless othe	rwise noted.	<u> </u>		Indicators	for Probler	natic Hydri	c Soils	
Histosol (A1)		,		ileyed Matrix				Prairie Red	•		
Histic Epipedon (A2)				edox (S5)	(34)			urface (S7)			
Black Histic (A3)		-		d Matrix (S6)					Masses (F1	2)	
Hydrogen Sulfide (A4)				Mucky Miner	al (F1)			-	k Surface (1		
Stratified Layers (A5)			-	, Gleyed Matri:				(Explain in		,	
2 cm Muck (A10)				d Matrix (F3)					•		
Depleted Below Dark	Surface (A1	1)	Redox D	oark Surface (F6)						
Thick Dark Surface (A: Sandy Mucky Mineral				d Dark Surfac Depressions (Indicators of wetland hy disturbed of	drology mι	ust be prese		ss
Restrictive Layer (if preser	t):										
Type: None	-						District C. "	Due s = :: 2	V		v
Depth (inches): NA							Hydric Soil	rresent?	Yes	No	Х
Remarks:											
Wetland Hydrology Indica Primary Indicators (minimu Surface Water (A1) High Water Table (A2)		equired; ch	Wate	er-Stained Le atic Fauna (B	13)		Sec 	Surface So Drainage	dicators (2 c oil Cracks (E Pattern (B1	36) 0)	equired
Wetland Hydrology Indica Primary Indicators (minimu Surface Water (A1) High Water Table (A2) Saturation (A3)		equired; ch	Wate Aqua True	er-Stained Le atic Fauna (B Aquatic Plan	13) ts (B14)		Sec	Surface So Drainage Dry-Seaso	oil Cracks (E Pattern (B1 on Water Ta	36) 0) ible (C2)	equired
Wetland Hydrology Indica Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	m of one re	equired; ch	Wate Aqua True Hydr	er-Stained Le atic Fauna (B Aquatic Plan ogen Sulfide	13) its (B14) Odor (C1)	ots (C2)	Sec 	Surface So Drainage Dry-Seaso Crayfish E	oil Cracks (E Pattern (B1 on Water Ta Burrows (C8	36) 0) ible (C2))	
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2	m of one re	equired; ch	Wate Aqua True Hydr Oxidi	er-Stained Le atic Fauna (B: Aquatic Plan ogen Sulfide zed Rhizosphe	13) its (B14) Odor (C1) res on Living Roo	ots (C3)	Sec	Surface Son Drainage Dry-Seaso Crayfish E Saturation	oil Cracks (E Pattern (B1 on Water Ta Burrows (C8 Visible on Ae	86) 0) able (C2)) erial Image	ery (C9)
Wetland Hydrology Indica Primary Indicators (minimu Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	m of one re	equired; ch	Wate Aqua True Hydr Oxidi Pres	er-Stained Le atic Fauna (B: Aquatic Plan ogen Sulfide zed Rhizosphe ence of Redu	13) its (B14) Odor (C1) res on Living Roc ced Iron (C4)		Sec	Surface Son Drainage Dry-Season Crayfish E Saturation Stunted o	oil Cracks (E Pattern (B1 on Water Ta Burrows (C8 Visible on Ae or Stressed I	36) 0) able (C2)) erial Image Plants (D	ery (C9)
Wetland Hydrology Indica Primary Indicators (minimus Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	m of one re	equired; ch	Wate Aqua True Hydr Oxidi Prese	er-Stained Le atic Fauna (B: Aquatic Plan rogen Sulfide zed Rhizosphe ence of Redu ant Iron Redu	13) ts (B14) Odor (C1) res on Living Roc ced Iron (C4) ction in Tilled S		Sec.	Surface Son Drainage Dry-Season Crayfish E Saturation Stunted on Geomorp	oil Cracks (E Pattern (B1 on Water Ta Burrows (C8 Visible on Ae or Stressed I hic Position	36) 0) able (C2)) erial Imago Plants (D (D2)	ery (C9)
Wetland Hydrology Indica Primary Indicators (minimus Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	m of one re		Aqua True Hydr Oxidi Pres	er-Stained Le atic Fauna (B: Aquatic Plan ogen Sulfide zed Rhizosphe ence of Redu	ts (B14) Odor (C1) res on Living Roc ced Iron (C4) ction in Tilled S e (C7)		Sec	Surface Son Drainage Dry-Season Crayfish E Saturation Stunted on Geomorp	oil Cracks (E Pattern (B1 on Water Ta Burrows (C8 Visible on Ae or Stressed I	36) 0) able (C2)) erial Imago Plants (D (D2)	ery (C9)
Wetland Hydrology Indica Primary Indicators (minimusurface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	m of one re	37)	Aqua Aqua True Hydr Oxidi Press Rece Thin	er-Stained Le atic Fauna (B: Aquatic Plan rogen Sulfide zed Rhizosphe ence of Redu ent Iron Redu Muck Surfac	ts (B14) Odor (C1) res on Living Roc ced Iron (C4) ction in Tilled S e (C7) ta (D9)		Sec	Surface Son Drainage Dry-Season Crayfish E Saturation Stunted on Geomorp	oil Cracks (E Pattern (B1 on Water Ta Burrows (C8 Visible on Ae or Stressed I hic Position	36) 0) able (C2)) erial Imago Plants (D (D2)	ery (C9)
Wetland Hydrology Indica Primary Indicators (minimus Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer	m of one re	37)	Aqua Aqua True Hydr Oxidi Press Rece Thin	er-Stained Le atic Fauna (B: Aquatic Plan rogen Sulfide zed Rhizosphe ence of Redu ent Iron Redu Muck Surfac ge or Well Da	ts (B14) Odor (C1) res on Living Roc ced Iron (C4) ction in Tilled S e (C7) ta (D9)		Sec	Surface Son Drainage Dry-Season Crayfish E Saturation Stunted on Geomorp	oil Cracks (E Pattern (B1 on Water Ta Burrows (C8 Visible on Ae or Stressed I hic Position	36) 0) able (C2)) erial Imago Plants (D (D2)	ery (C9)
Wetland Hydrology Indica Primary Indicators (minimus Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Sparsely Vegetated Conca	m of one re al Imagery (B ve Surface (B	37) 38)	Aqua True Hydr Oxidi Presi Rece Thin Gau Othe	er-Stained Le atic Fauna (B: Aquatic Plan rogen Sulfide zed Rhizosphe ence of Redu ent Iron Redu Muck Surfac ge or Well Da er (Explain in	ts (B14) Odor (C1) res on Living Roc ced Iron (C4) ction in Tilled S e (C7) ta (D9) Remarks)		Sec	Surface Son Drainage Dry-Season Crayfish E Saturation Stunted on Geomorp	oil Cracks (E Pattern (B1 on Water Ta Burrows (C8 Visible on Ae or Stressed I hic Position	36) 0) able (C2)) erial Imago Plants (D (D2)	ery (C9)
Wetland Hydrology Indica Primary Indicators (minimus Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Sparsely Vegetated Conca	m of one re al Imagery (B ve Surface (B Yes	37) 18) No>	Matu Aqua True Hydr Oxidi Press Rece Thin Gaug Othe	er-Stained Le atic Fauna (B: Aquatic Plan rogen Sulfide zed Rhizosphe ence of Redu ent Iron Redu Muck Surfac ge or Well Da er (Explain in	ts (B14) Odor (C1) res on Living Roc ced Iron (C4) ction in Tilled S e (C7) ta (D9) Remarks)	Soils (C6)		Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp FAC-Neut	oil Cracks (E Pattern (B1 on Water Ta Burrows (C8 Visible on Ae or Stressed I hic Position ral Test (D5	86) 0) able (C2)) Prial Image Plants (D (D2)	ery (C9)
Wetland Hydrology Indica Primary Indicators (minimus Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer	m of one re al Imagery (B ve Surface (B		— Wate Aqua — True — Hydr Oxidi — Press — Rece — Thin Gaua — Othe	er-Stained Le atic Fauna (B: Aquatic Plan rogen Sulfide zed Rhizosphe ence of Redu ent Iron Redu Muck Surfac ge or Well Da er (Explain in	ts (B14) Odor (C1) res on Living Roc ced Iron (C4) ction in Tilled S e (C7) ta (D9) Remarks)	Soils (C6)	Sec	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp FAC-Neut	oil Cracks (E Pattern (B1 on Water Ta Burrows (C8 Visible on Ae or Stressed I hic Position	86) 0) able (C2)) Prial Image Plants (D (D2)	ery (C9)

	pical for this blogy No blogy No map show X No	time of year? significantly naturally pro ing sampli	Section Sectin Section Section Section Section Section Section Section Section	Sta on, Town ef (conca X ed? Are c? (if r	ste: SD ship, Range: ve, convex, none) N' No (if r "Normal Circums needed, explain in ons, transects,	Sampl : Convex Datur WI classification: no, explain in Rer stances" present	narks.) ? Yes _ autres,	DP01	
VEGETATION – Use scientific names of Tree Stratum (Plot size: 30)	plants Absolute % Cover	DominantS pecies?	Indicato Status	or	Dominance Te s	minant Species			
1)	= Total Co	ver		That Are OBL, F Total Number of Species Across Percent of Dom That Are OBL, F	of Dominant All Strata: ninant Species		2	(A) (B) (A/B)
1. Herb Stratum (Plot size: 5) 1. Spartina pectinata 2. Phalaris arundinacea 3. Schoenoplectus acutus 4. Typha angustifolia 5.	65% 40% 20% 5%	= Total Co	FACW FACW OBL		Prevalence Ind Total % Cover of OBL species FACW species FAC species FACU species UPL species Column Totals:	25% 105% 0% 0% 0% 130.0%	x 2	25.0% 210.0% 0.0% 0.0% 0.0% 235%	
Woody Vine Stratum (Plot size: 15 1		= Total Co	ver		Hydrophytic Vo	egetation Indicatest for Hydrophynce Test if >50% nce Index is ≤ 3.0 logical Adaptationarks or on a sepic Hydrophytic Veric soil and wetlands	tic Vegeta ons (Provi erate she egetation nd hydrol	de suppo et) (Explain)
Remarks: PEM					Vegetation Present?	Yes <u>X</u>	No		

Profile Descri	ption: (Desci	ibe to the d	epth needed	to document the i	ndicator or con	nfirm the al	bsence of indicator	
Depth	Ma	trix		Redox F	eatures			
(inches)	Color:	%	Co	olor: %	Type:	Loc:	Texture:	Remarks:
0-6	10YR 2/2	100	%				Clay Loam	2 in OM
6-16	10YR 2/1						Clay Loam	
	101112/1				_			
Type: C=Conc	entration, D=	Depletion, F	RM=Reduced	Matrix, CS=Covered	d or Coated Sar	nd Grains	Locati	on: PL=Pore Lining, M=Matrix
Hydric Soil Inc	dicators: (Ap	plicable to a	ıll LRRs, unle	ss otherwise noted	.)		Indicators for Prob	olematic Hydric Soils
Histosol	(A1)		9	Sandy Gleyed Matri	x (S4)		Coast Prairie	Redoc (A16)
Histic Ep	ipedon (A2)			Sandy Redox (S5)	, ,		Dark Surface	
Black His	tic (A3)			Stripped Matrix (S6)	ı		Iron-Mangane	ese Masses (F12)
Hydroge	n Sulfide (A4)		l	oamy Mucky Mine	ral (F1)		Very Shallow	Dark Surface (TF12)
Stratified	d Layers (A5)		l	oamy Gleyed Matri	ix (F2)		Other (Explain	n in Remarks)
2 cm Mu				Depleted Matrix (F3)			
Depleted	d Below Dark	Surface (A1:		Redox Dark Surface	` '			
l 	rk Surface (A		-	Depleted Dark Surfa			Indicators of hydro	phytic vegetation and
Sandy M	ucky Mineral	(S1)		Redox Depressions ((F8)		wetland hydrology disturbed or proble	must be present, unless ematic.
Restrictive La		it):					Hydric Soil Presen	
Depth (in	ches): NA						Tryunc Son Tresen	res <u>x</u> nes
HYDROLOG Wetland Hydr		tors						
Primary Indica	ators (minim	ım of one re	quired; chec	k all that apply)			Secondary	Indicators (2 or more required)
Surface W	/ater (A1)			Water-Stained Le	eaves (B9)		Surfac	e Soil Cracks (B6)
High Wate	er Table (A2)			Aquatic Fauna (B	•		Draina	ige Pattern (B10)
X_Saturation	n (A3)		_	True Aquatic Pla			Dry-Se	eason Water Table (C2)
Water Ma	. ,		_	Hydrogen Sulfide	` '			sh Burrows (C8)
	Deposits (B2)	_	Oxidized Rhizosphe	_	ots (C3)		cion Visible on Aerial Imagery (C9)
Drift Depo			_	Presence of Redu	, ,	0 11 (00)		ed or Stressed Plants (D1)
	or Crust (B4)		_	Recent Iron Redu		Soils (C6)		orphic Position (D2)
Iron Depo	osits (B5) i Visible on Aer	ial Imagery (R	.7)	Thin Muck Surface Gauge or Well Da			X FAC-N	eutral Test (D5)
	egetated Conc		•	Other (Explain in				
					Tremarks,			
Field Observa		V-	M. Y	Development (Control				
Surface Water		·	_ No _ X	Depth (inches):	NA			
Water Table F			No X		NA	Wetland	Hydrology Present	? Yes <u>X</u> No
Saturation Pre	llary fringe)		No	Depth (inches):	6		un ilahi c	
Describe Reco	orded Data (s	ream guage	e, monitoring	well, aerial photos,	previous inspe	ections), if a	ivaliable:	
Remarks:								

Project/Site: Tatanka Ridge Wind Project		City/Coun	nty: Dei	uel Coun	ty	Sampli	ing Date:	7/31,	/2018
Applicant/Owner: Buffalo Ridge III, LLC			-	S	tate: SD	Sampl	ing Point:	DP0	12
Investigator(s): E. Schwartz, P. Swartzinski			Sect	tion, Tow	nship, Range:	_	,,		
Landform (hillslope, terrace, etc.): depression	on	[Local rel	lief (conc	cave, convex, none):	Linear Slop	е		
Slope (%): <5% Lat:			Long:			Datur	n: <u>NAD8</u>	3	
Soil Map Unit Name:						I classification:			
Are climatic/hydrologic conditions on the site ty			_			, explain in Ren			
Are Vegetation No , Soil No , or Hydro							Yes _	X	No
Are Vegetation No , Soil No , or Hydro					f needed, explain in R				
SUMMARY OF FINDINGS – Attach site			ng poi	nt locat	tions, transects, i	mportant fe	autres,	etc.	
	No.			la tha Cau	mulad Avaa				
Hydric Soil Present? Yes _	No	X			mpled Area Wetland?	Yes No	. Х		
Wetland Hydrology Present? Yes _	No	X	"	within a	vectione.			=	
Remarks: Upland									
VEGETATION – Use scientific names of	•								
<u>Tree Stratum</u> (Plot size: 30)	Absolute % Cover	DominantS pecies?	Indicat Status		Dominance Test	Worksheet:			
<u></u> ,	% Cover	pecies:	Status		Number of Domi	nant Species			
					That Are OBL, FA	CW, or FAC:	1	<u> </u>	(A)
1		· = ·			Total Number of		_	,	(D)
		= Total Cov	ver		Species Across Al			3	(B)
Sapling/Shrub Stratum (Plot size: 15)				Percent of Domir That Are OBL, FA	•	33.	3%	(A/B)
1.					Prevalence Index	« Worksheet:			
		= Total Cov	ver		Total % Cover of:		Multiply	, hv.	
Herb Stratum (Plot size: 5)		_						•	<u>—</u>
1. Poa pratensis	35%	Υ	FAC		OBL species	0%	-	0.0%	_
2. Phleum pratense	35%	Y	FACL		FACW species	0%	x 2	0.0%	_
3. Bromus inermis	30%	Y	FACL		FAC species	35%	x 31	.05.0%	_
4. Solidago canadensis	10%		FACL		FACU species	75%	x 43	00.0%	
					UPL species	0%	x 5	0.0%	
5					Column Totals:	110.0%	(A)	405%	(B)
	110%	= Total Cov	ver		Prevalence Ind		3.6		(-/
Woody Vine Stratum (Plot size: 15)				r revalence inc	- b/A -	3.0		
					Hydrophytic Veg	etation Indicat	ors:		
1					N 1 - Rapid Tes	t for Hydrophyt	tic Vegeta	tion	
		= Total Cov	ver		N 2 - Dominano	ce Test if >50%			
					N 3 - Prevalenc	e Index is ≤ 3.0			
					N 4 - Morpholo	ogical Adaptatic orks or on a sep Hydrophytic Ve soil and wetlar	ons (Providerate she egetation of and hydrological	et) (Explair	n)
					Hydrophytic Vegetation Present?	Yes	No X		
Remarks: Upland									

Depth M		•	caca to ao	cument the n			bsence of indicator	
•	atrix			Redox F	eatures			
(inches) Color:	%)	Color:	%	Type:	Loc:	Texture:	Remarks:
0-16 10YR 2/	2 100)%					Clay Loam	
Type: C=Concentration, D	=Depletion,	RM=Rec	luced Matri	x, CS=Covered	d or Coated Sar	nd Grains	Location:	PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (A	pplicable to	all LRRs,	unless oth	erwise noted	.)		Indicators for Probler	natic Hydric Soils
Histosol (A1)				Gleyed Matrix			Coast Prairie Red	oc (A16)
Histic Epipedon (A2)		•		Redox (S5)	(-)		Dark Surface (S7)	, ,
Black Histic (A3)		•	Strippe	ed Matrix (S6)			Iron-Manganese	Masses (F12)
Hydrogen Sulfide (A	1)		Loamy	Mucky Miner	ral (F1)		Very Shallow Dar	k Surface (TF12)
Stratified Layers (A5)		Loamy	Gleyed Matri	ix (F2)		Other (Explain in	Remarks)
2 cm Muck (A10)		:		ed Matrix (F3				
Depleted Below Dar		L 1)		Dark Surface				
Thick Dark Surface (<i>i</i> Sandy Mucky Minera	•		•	ed Dark Surfa Depressions (Indicators of hydroph wetland hydrology mu disturbed or problema	ust be present, unless
Restrictive Layer (if prese	ent):							
Type: None			_				Hydric Soil Present?	Yes No X
Depth (inches): NA	4						,	
Remarks: Upland						ļ		
HYDROLOGY								
HYDROLOGY Wetland Hydrology Indic	ators							
Wetland Hydrology Indic		equired;	check all th	nat apply)			Secondary Inc	licators (2 or more required)
Wetland Hydrology Indic		equired;	Wa	ter-Stained Le				licators (2 or more required) pil Cracks (B6)
Wetland Hydrology Indic Primary Indicators (minin	num of one r	equired;	Wa Aqı	ter-Stained Le uatic Fauna (B	13)		Surface Son Drainage	oil Cracks (B6) Pattern (B10)
Wetland Hydrology Indic Primary Indicators (minin Surface Water (A1) High Water Table (A2 Saturation (A3)	num of one r	equired;	— Wa Aqı Tru	ter-Stained Le uatic Fauna (B e Aquatic Plai	13) nts (B14)		Surface So Drainage Dry-Seaso	oil Cracks (B6) Pattern (B10) on Water Table (C2)
Wetland Hydrology Indic Primary Indicators (minin Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1)	num of one r	equired;	— Wa Aqu — Tru — Hyo	ter-Stained Le uatic Fauna (B e Aquatic Plai drogen Sulfide	13) nts (B14) e Odor (C1)		Surface Some Drainage Dry-Season Crayfish E	oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8)
Wetland Hydrology Indic Primary Indicators (minin Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B	num of one r	equired;	Wa Aqu Tru Hyo Oxid	ter-Stained Le uatic Fauna (B e Aquatic Plai drogen Sulfide dized Rhizosphe	113) nts (B14) e Odor (C1) eres on Living Ro	oots (C3)	Surface Some Drainage Dry-Season Crayfish E	oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9)
Wetland Hydrology Indic Primary Indicators (minin Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3)	num of one ro	equired;	Wa Aqu Tru Hyo Oxio	ter-Stained Le uatic Fauna (B e Aquatic Plai drogen Sulfide dized Rhizosphe sence of Redu	nts (B14) c Odor (C1) eres on Living Ro uced Iron (C4)		Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of	pil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Wetland Hydrology Indic Primary Indicators (minin Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B6	num of one ro	equired;	Wa Aqu Tru Hyo Oxid Pre	ter-Stained Le uatic Fauna (B e Aquatic Plai drogen Sulfide dized Rhizosphe sence of Redu cent Iron Redu	nts (B14) c Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled		Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	pil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1) hic Position (D2)
Wetland Hydrology Indic Primary Indicators (minin Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5)	num of one ro 2) 2) 4)		Wa Aqu Tru Hyo Oxio Pre Rec	ter-Stained Le uatic Fauna (B e Aquatic Plai drogen Sulfide dized Rhizosphe sence of Redu cent Iron Redu n Muck Surfac	ents (B14) e Odor (C1) eres on Living Ro luced Iron (C4) fuction in Tilled ce (C7)		Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	pil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Wetland Hydrology Indic Primary Indicators (minin Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B6)	num of one re 2) 2) 4) erial Imagery (I	B7)	— Wa Aqu — Tru — Hyo — Oxio — Pre — Rec — Thi — Gao	ter-Stained Le uatic Fauna (B e Aquatic Plai drogen Sulfide dized Rhizosphe sence of Redu cent Iron Redu	onts (B14)		Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	pil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1) hic Position (D2)
Primary Indicators (minin Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on A6	num of one re 2) 2) 4) erial Imagery (I	B7)	— Wa Aqu — Tru — Hyo — Oxio — Pre — Rec — Thi — Gao	ter-Stained Le uatic Fauna (B e Aquatic Plai drogen Sulfide dized Rhizosphe sence of Redu cent Iron Redu n Muck Surfac uge or Well Da	onts (B14)		Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1) hic Position (D2)
Wetland Hydrology Indic Primary Indicators (minin Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on A6 Sparsely Vegetated Con	num of one re (2) 4) erial Imagery (I cave Surface (I	B7) B8)	Ma Aqu Tru Hyo Oxio Pre Rec Thi Gau	ter-Stained Le uatic Fauna (B e Aquatic Plai drogen Sulfide dized Rhizosphe sence of Redu cent Iron Redu n Muck Surfac uge or Well Da	onts (B14)		Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	pil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1) hic Position (D2)
Wetland Hydrology Indic Primary Indicators (minin Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on A6 Sparsely Vegetated Con	num of one reconstruction (1) 4) erial Imagery (Income Surface (Income Surfa	B7) B8)	Wa Aqu Aqu Tru Hyo Oxio Pre Rec Thi Gau Oth	ter-Stained Le uatic Fauna (B e Aquatic Plai drogen Sulfide dized Rhizosphe sence of Redu cent Iron Redu n Muck Surfac uge or Well Da	onts (B14)		Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	pil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1) hic Position (D2)
Wetland Hydrology Indic Primary Indicators (minin Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on A6 Sparsely Vegetated Con Field Observations: Surface Water Present?	Yes	B7) B8) No No _	X Dep	ter-Stained Le uatic Fauna (B e Aquatic Plai drogen Sulfide dized Rhizosphe sence of Redu ent Iron Redu n Muck Surfac uge or Well Da ner (Explain in	et13) Ints (B14) Ints (B14) Ints (B14) Ints (B14) Ints (B14) Interes on Living Ro Interes on	Soils (C6)	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	pil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1) hic Position (D2)
Wetland Hydrology Indic Primary Indicators (minin Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on A6 Sparsely Vegetated Con Field Observations: Surface Water Present? Water Table Present?	num of one reconstruction (1) 4) erial Imagery (Income Surface (Income Surfa	B7) B8) No No _	X Dep	ter-Stained Le uatic Fauna (B e Aquatic Plai drogen Sulfide dized Rhizosphe sence of Redu cent Iron Redu n Muck Surfac uge or Well Da ner (Explain in	nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9) Remarks)	Soils (C6)	Surface Some Drainage Dry-Season Crayfish Esturation Stunted of Geomorp FAC-Neut	pil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1) hic Position (D2) ral Test (D5)
Wetland Hydrology Indic Primary Indicators (minin Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on A6 Sparsely Vegetated Con Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes Yes	B7) B8) No _ No _	X Dep X Dep	ter-Stained Le uatic Fauna (B e Aquatic Plai drogen Sulfide dized Rhizosphe sence of Redu ent Iron Redu n Muck Surfac uge or Well Da ner (Explain in	ents (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) enta (D9) Remarks) NA NA NA NA	Soils (C6) Wetland	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted on Geomorp FAC-Neut Hydrology Present?	pil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1) hic Position (D2) ral Test (D5)
Wetland Hydrology Indic Primary Indicators (minin Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on A6 Sparsely Vegetated Con Field Observations: Surface Water Present? Water Table Present?	YesYesYes	B7) B8) No _ No _	X Dep X Dep	ter-Stained Le uatic Fauna (B e Aquatic Plai drogen Sulfide dized Rhizosphe sence of Redu ent Iron Redu n Muck Surfac uge or Well Da ner (Explain in	ents (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) enta (D9) Remarks) NA NA NA NA	Soils (C6) Wetland	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted on Geomorp FAC-Neut Hydrology Present?	pil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1) hic Position (D2) ral Test (D5)

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC		City/Cour	-	Sta	ate: SD		ing Date: ing Point:	7/31/2 DP01	
Investigator(s): E. Schwartz, P. Swartzinski					ship, Range:		,,		
Landform (hillslope, terrace, etc.): depression	n				ve, convex, none):				
Slope (%): <5% Lat:			Long: _		NI)		n: <u>NAD83</u>		
Soil Map Unit Name:		*: £	7 V	V		NI classification:			
Are climatic/hydrologic conditions on the site ty			_			o, explain in Ren	•	V	No
Are Vegetation No , Soil No , or Hydro					needed, explain in		res		No
Are Vegetation No , Soil No , or Hydro									
SUMMARY OF FINDINGS – Attach site	map show	ing sampli	ng poir	nt locati	ons, transects,	important fe	autres, e	tc.	
Hydrophytic Vegetation Present? Yes _	X No								
Hydric Soil Present? Yes _	X No			s the Sam		Voc V Na	_		
Wetland Hydrology Present? Yes	X No		v	within a W	/etland?	Yes X No	' ——		
Remarks:									
PEM									
I LIVI									
VEGETATION – Use scientific names of	plants								
	Absolute	DominantS	Indicat	tor	Dominance Tes	t Workshoot			
<u>Tree Stratum</u> (Plot size: <u>30</u>)	% Cover	pecies?	Status						
					Number of Don	•	2	1	(A)
1.					That Are OBL, F				(7 ()
	-	Tatal Car			Total Number of Species Across		2	,	(B)
	-	_ = Total Co	ver		Percent of Dom			'	(5)
Sapling/Shrub Stratum (Plot size: 15)				That Are OBL, F.	•	100.0)%	(A/B)
1.					Prevalence Indo	ex Worksheet:			
	-	= Total Co	ver				N. A I &	h	
Hade Charles (District 5		_ = 10tal co	VCI		Total % Cover o	of:	Multiply	by:	_
Herb Stratum (Plot size: 5					OBL species	85%	x 1 85	5.0%	_
Schoenoplectus acutus	45%	Υ	OBL		FACW species	15%	x 230	0.0%	_
2. Schoenoplectus tabernaemontani	25%	Υ	OBL		FAC species	10%	x 3 30	0.0%	
3. Juncus balticus	15%	N	OBL		FACU species	0%	x 4 0	0.0%	_
4. Phalaris arundinacea	15%	N	FACW		· ·				_
5. Poa pratensis	10%	N	FAC		UPL species	0%		0.0%	_
6.					Column Totals:	110.0%	(A) <u>1</u>	.45%	_ (B)
	110%	= Total Co	ver		Prevalence In	ndex = B/A =	1.32	<u>?</u>	
Woody Vine Stratum (Plot size: 15)	_			Hydrophytic Ve	getation Indicat	ors:		
					V 1 - Ranid Te	est for Hydrophy	tic Vegetati	ion	
1						nce Test if >50%	regetati		
		= Total Co	ver						
	-	=			Y 3 - Prevaler	nce Index is ≤ 3.0			
					data in Rem	logical Adaptatic narks or on a sep	erate shee	t)	_
						c Hydrophytic Ve			
					Indicators of hydri			zy must	t be
					present, unless dis	sturbed or probl	ematic		
					Hydrophytic				
					Vegetation				
					Present?	Yes X	NO	_	
Remarks: PEM									

Profile Description: (D	escribe to the	depth needed	to document the	indicator or co	nfirm the ak	osence of indicator	
, '	Matrix			Features			
(inches) Colo	or: %	<u> </u>	olor: %	Type:	Loc:	Texture:	Remarks:
0-16 10YR	2/1					Clay Loam	
Type: C=Concentration	, D=Depletion,	RM=Reduced	Matrix, CS=Cover	ed or Coated Sa	nd Grains	Location: P	L=Pore Lining, M=Matrix
Hydric Soil Indicators:	(Applicable to	all LRRs, unle	ss otherwise note	ed.)		Indicators for Problems	atic Hydric Soils
Histosol (A1) Histic Epipedon (A Black Histic (A3) Hydrogen Sulfide Stratified Layers ((A4)		Sandy Gleyed Mat Sandy Redox (S5) Stripped Matrix (S Loamy Mucky Min Loamy Gleyed Ma	6) eral (F1)		Coast Prairie Redo Dark Surface (S7) Iron-Manganese N Very Shallow Dark Other (Explain in R	Masses (F12) Surface (TF12)
2 cm Muck (A10) Depleted Below D X Thick Dark Surface Sandy Mucky Min	e (A12)	L1)	Depleted Matrix (I Redox Dark Surfac Depleted Dark Sur Redox Depression	e (F6) face (F7)		Indicators of hydrophyt wetland hydrology mus disturbed or problemat	t be present, unless
Restrictive Layer (if pr						Hydric Soil Present?	Yes X No
Depth (inches): Remarks:	NA						
HYDROLOGY	dicators						
Primary Indicators (min Surface Water (A1	nimum of one r)	equired; chec —	Water-Stained			Surface Soi	cators (2 or more required) I Cracks (B6)
High Water Table (X Saturation (A3) Water Marks (B1)	A2)	_	Aquatic Fauna True Aquatic Pl Hydrogen Sulfic	lants (B14)			attern (B10) 1 Water Table (C2) 1rrows (C8)
Sediment Deposits Drift Deposits (B3)		- -	Presence of Re	heres on Living Ro		Stunted or	isible on Aerial Imagery (C9) Stressed Plants (D1)
Algal Mat or CrustIron Deposits (B5) Inundation Visible orSparsely Vegetated 0	Aerial Imagery (Thin Muck Surf Gauge or Well Other (Explain	Data (D9)	Soils (C6)	X Geomorph X FAC-Neutra	ic Position (D2) al Test (D5)
Field Observations: Surface Water Present	? Yes	NoX	Depth (inches):	: NA			
Water Table Present? Saturation Present?	Yes X	No X No	Depth (inches)		Wetland	Hydrology Present?	Yes <u>X</u> No
(includes capillary fring Describe Recorded Date		e, monitoring	well, aerial photo	s, previous insp	ections). if a	vailable:	
Remarks:	'on cam Page	,-,		-, p. 21.343 1134			

Hydric Soil Present? Yes _ Wetland Hydrology Present? Yes _	rpical for this ology No ology No map show	time of year significantly naturally pring sampli	Local relief Long: Yes disturbed oblematic ng point	State: SD n, Township, Range: (concave, convex, none): L NWI clas X No (if no, exp ? Are "Normal Circumstances (if needed, explain in Rema locations, transects, impo	rks.)	DP014 3 X No etc.
Remarks: Upland VEGETATION – Use scientific names of	nlants					
Tree Stratum (Plot size: 30)	Absolute % Cover	DominantS pecies?	Indicator Status	Dominance Test Wor Number of Dominant That Are OBL, FACW, Total Number of Dom	Species or FAC:	1 (A)
Sapling/Shrub Stratum (Plot size: 15)	= Total Co	ver	Species Across All Stra Percent of Dominant That Are OBL, FACW,	ata:	(B) 0% (A/B)
1		= Total Co	ver	Prevalence Index Wo	orksheet: Multipl	y by:
Herb Stratum (Plot size: 5) 1. Bromus inermis 2. Poa pratensis 3. Phleum pratense 4. Pascopyrum smithii 5.	35% 35% 25% 25% 120%	Y Y Y Y T T T T T T T T T T T T T T T	FACU FACU FACU Ver	OBL species FACW species FAC species FACU species UPL species Column Totals: 1 Prevalence Index =	85% x 4 3 0% x 5 120.0% (A)	0.0% 0.0% 105.0% 340.0% 0.0% 445% (B)
Woody Vine Stratum (Plot size: 15)			Hydrophytic Vegetati	<u> </u>	
		= Total Co	ver	N 1 - Rapid Test for N 2 - Dominance Te N 3 - Prevalence Inc N 4 - Morphological data in Remarks of N Problematic Hydr Indicators of hydric soil present, unless disturbe Hydrophytic Vegetation	est if >50% dex is ≤ 3.0 I Adaptations (Provior on a seperate sherophytic Vegetation and wetland hydrol	de supporting et) (Explain)
Remarks: Upland				Present? Ye	esNo <u>X</u>	_

Depth Mat (inches) Color:	rix			Redox F	eatures						
	%		Color:	%	Type:	Loc:	Text	ure:	R	emarks:	<u> </u>
0-16 10YR 3/2	100	%					Clay I	Loam			
Гуре: C=Concentration, D=	Depletion, F	RM=Redu	ced Matrix	κ, CS=Covere	d or Coated Sa	nd Grains		Location:	PL=Pore Lir	ning, M=I	Matrix
Hydric Soil Indicators: (App	olicable to a	all I RRs. u	nless othe	erwise noted	.)		Indicators f	or Problen	natic Hydri	c Soils	
Histosol (A1)		,		Gleyed Matri				Prairie Red	•		
Histic Epipedon (A2)				Redox (S5)	X (34)			urface (S7)			
Black Histic (A3)		=		ed Matrix (S6)	1			` '	Masses (F1	2)	
Hydrogen Sulfide (A4)		_		Mucky Mine				_	k Surface (1		
Stratified Layers (A5)			-	Gleyed Matr				(Explain in		,	
2 cm Muck (A10)				, ed Matrix (F3				•	,		
Depleted Below Dark	Surface (A1	1)		Dark Surface							
Thick Dark Surface (A1 Sandy Mucky Mineral	2)	_	Deplet	ed Dark Surfa Depressions	nce (F7)		Indicators o wetland hyd disturbed o	drology mu	ist be prese		SS
Restrictive Layer (if presen	t):										
Type: None	•						Handada O. W.	Duos 2	V		.,
Depth (inches): NA			-				Hydric Soil	rresent?	Yes	No	Х
Remarks: Upland			=								
	ors										
Wetland Hydrology Indica		equired: r	heck all th	at apply)			Sec	ondary Ind	licators (2 c	or more r	eguireo
Wetland Hydrology Indicators (minimum		equired; c			eaves (B9)		Sec		licators (2 c		equired
Wetland Hydrology Indica		equired; c	Wa	at apply) ter-Stained Lu latic Fauna (E			Sec	Surface So	licators (2 c oil Cracks (B Pattern (B1	36)	equired
Wetland Hydrology Indicate Primary Indicators (minimuSurface Water (A1)		equired; c	War	ter-Stained L	313)		Sec —	Surface So Drainage	oil Cracks (E	36) 0)	equired
Wetland Hydrology Indicate Primary Indicators (minimu Surface Water (A1) High Water Table (A2)		equired; c	War Aqu Tru	ter-Stained Lo Jatic Fauna (E	313) nts (B14)		Sec	Surface So Drainage Dry-Seaso	oil Cracks (E Pattern (B1	36) 0) ible (C2)	equired
Wetland Hydrology Indicate Primary Indicators (minimu Surface Water (A1) High Water Table (A2) Saturation (A3)	m of one re	equired; c	War Aqu Tru Hyd	ter-Stained Lo Jatic Fauna (E e Aquatic Pla Jrogen Sulfido	313) nts (B14)	oots (C3)	Sec	Surface So Drainage Dry-Seaso Crayfish B	oil Cracks (E Pattern (B1 on Water Ta	36) 0) ible (C2))	
Wetland Hydrology Indicate Primary Indicators (minimu Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	m of one re	equired; c	War Aqu Tru Hyd Oxio	ter-Stained Lo Latic Fauna (E e Aquatic Pla Irogen Sulfide Jized Rhizospho	313) nts (B14) e Odor (C1)	oots (C3)		Surface So Drainage Dry-Seaso Crayfish B Saturation	oil Cracks (E Pattern (B1 on Water Ta Jurrows (C8	86) 0) able (C2)) erial Image	ery (C9)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	m of one re	equired; c	Waʻ Aqu Trui Hyd Oxid	ter-Stained Lo latic Fauna (E e Aquatic Pla Irogen Sulfide dized Rhizospho sence of Redo ent Iron Redo	s13) nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled			Surface So Drainage Dry-Seaso Crayfish B Saturation Stunted o Geomorpi	oil Cracks (E Pattern (B1 on Water Ta Surrows (C8 Visible on Ae r Stressed I hic Position	36) 0) able (C2)) erial Imago Plants (D (D2)	ery (C9)
Wetland Hydrology Indicate Primary Indicators (minimusurface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	m of one re		Aqu Aqu Trui Hyd Oxic Pres Rec Thir	ter-Stained Li uatic Fauna (E e Aquatic Pla Irogen Sulfide dized Rhizospho sence of Redi ent Iron Redi n Muck Surfa	s13) nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7)			Surface So Drainage Dry-Seaso Crayfish B Saturation Stunted o Geomorpi	oil Cracks (E Pattern (B1 on Water Ta Jurrows (C8 Visible on Ae r Stressed I	36) 0) able (C2)) erial Imago Plants (D (D2)	ery (C9)
Wetland Hydrology Indicators Primary Indicators (minimusurface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerica	m of one re	37)	Aqu Aqu Tru Hyd Oxic Pre: Rec Thir	ter-Stained Lo uatic Fauna (E e Aquatic Pla Irogen Sulfide dized Rhizospho sence of Redo ent Iron Redo n Muck Surfa uge or Well D	ata) nts (B14) e Odor (C1) eres on Living Rouced Iron (C4) uction in Tilled ce (C7) ata (D9)			Surface So Drainage Dry-Seaso Crayfish B Saturation Stunted o Geomorpi	oil Cracks (E Pattern (B1 on Water Ta Surrows (C8 Visible on Ae r Stressed I hic Position	36) 0) able (C2)) erial Imago Plants (D (D2)	ery (C9)
Wetland Hydrology Indicate Primary Indicators (minimusurface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	m of one re	37)	Aqu Aqu Tru Hyd Oxic Pre: Rec Thir	ter-Stained Li uatic Fauna (E e Aquatic Pla Irogen Sulfide dized Rhizospho sence of Redi ent Iron Redi n Muck Surfa	ata) nts (B14) e Odor (C1) eres on Living Rouced Iron (C4) uction in Tilled ce (C7) ata (D9)			Surface So Drainage Dry-Seaso Crayfish B Saturation Stunted o Geomorpi	oil Cracks (E Pattern (B1 on Water Ta Surrows (C8 Visible on Ae r Stressed I hic Position	36) 0) able (C2)) erial Imago Plants (D (D2)	ery (C9)
Wetland Hydrology Indicator Primary Indicators (minimus Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeric	m of one re	37)	Aqu Aqu Tru Hyd Oxic Pre: Rec Thir	ter-Stained Lo uatic Fauna (E e Aquatic Pla Irogen Sulfide dized Rhizospho sence of Redo ent Iron Redo n Muck Surfa uge or Well D	ata) nts (B14) e Odor (C1) eres on Living Rouced Iron (C4) uction in Tilled ce (C7) ata (D9)			Surface So Drainage Dry-Seaso Crayfish B Saturation Stunted o Geomorpi	oil Cracks (E Pattern (B1 on Water Ta Surrows (C8 Visible on Ae r Stressed I hic Position	36) 0) able (C2)) erial Imago Plants (D (D2)	ery (C9)
Wetland Hydrology Indicator Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeric Sparsely Vegetated Conca	m of one re al Imagery (B ve Surface (B	37) 38)	Mar Aqu Trui Hyd Oxid Pres Rec Thir Gau Oth	ter-Stained Lo uatic Fauna (E e Aquatic Pla Irogen Sulfide dized Rhizospho sence of Redo ent Iron Redo n Muck Surfa uge or Well D	ata) nts (B14) e Odor (C1) eres on Living Rouced Iron (C4) uction in Tilled ce (C7) ata (D9)			Surface So Drainage Dry-Seaso Crayfish B Saturation Stunted o Geomorpi	oil Cracks (E Pattern (B1 on Water Ta Surrows (C8 Visible on Ae r Stressed I hic Position	36) 0) able (C2)) erial Imago Plants (D (D2)	ery (C9)
Wetland Hydrology Indicator Indicators (minimus Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeric Sparsely Vegetated Conca	m of one re al Imagery (B ve Surface (B Yes	37) 38) No2	Aqu Aqu Trui Hyd Oxic Pre: Rec Thir Gau Oth	ter-Stained Luatic Fauna (E e Aquatic Pla Irogen Sulfide dized Rhizospho sence of Redu ent Iron Redu n Muck Surfa ige or Well D er (Explain in	ata) ints (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9) Remarks)	Soils (C6)		Surface So Drainage Dry-Seaso Crayfish B Saturation Stunted o Geomorp FAC-Neut	oil Cracks (B Pattern (B1 on Water Ta Journows (C8 Visible on Ae r Stressed I hic Position ral Test (D5	86) 0) able (C2)) Prial Image Plants (D (D2)	ery (C9)
Wetland Hydrology Indicators Primary Indicators (minimusurface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerica	m of one re al Imagery (B ve Surface (B		Mari Aqu Aqu Trui Hyd Oxid Pres Rec Thir Gau Oth	ter-Stained Louatic Fauna (E e Aquatic Pla drogen Sulfide dized Rhizospho sence of Redu ent Iron Redu n Muck Surfan ige or Well Duer (Explain in	nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9) Remarks)	Soils (C6)		Surface So Drainage Dry-Seaso Crayfish B Saturation Stunted o Geomorp FAC-Neut	oil Cracks (E Pattern (B1 on Water Ta Surrows (C8 Visible on Ae r Stressed I hic Position	86) 0) able (C2)) Prial Image Plants (D (D2)	ery (C9)

Project/Site: Tatanka Ridge Wind Project		City/Cour	ntv: Do	ual Caunt	.,	Samn	ling Date:	8/1/2	∩10
Applicant/Owner: Buffalo Ridge III, LLC		City/Cour	ilty. De		y ate: SD		ling Point:	DP01	
Investigator(s): E. Schwartz, P. Swartzinski			Sect		nship, Range:	3aiiip	ing Foint.	DIOI	.5
Landform (hillslope, terrace, etc.): depression	าท				ave, convex, none)	: Convex			
Slope (%): <5% Lat:	J11				ive, convex, none,		m: NAD83	3	
Soil Map Unit Name:			20116.			WI classification		•	
Are climatic/hydrologic conditions on the site ty	pical for this	time of year?	? Yes	Х	_	io, explain in Rei			
Are Vegetation No , Soil No , or Hydr			_			· •	•	Χ	No
Are Vegetation No , Soil No , or Hydr					needed, explain in		_		-
SUMMARY OF FINDINGS – Attach site							eautres.	etc.	
Hydrophytic Vegetation Present? Yes	X No		8 60.		,,	····portaint i			
<u> </u>			- 1	s the Sam	pled Area				
_				within a V		Yes X N	о	:	
Wetland Hydrology Present? Yes _	X No								
Remarks:									
Road ditch mapped as NWI PEM									
VEGETATION – Use scientific names of	nlanta								
VEGETATION – OSE SCIENTIFIC HAITIES OF	•	Dam: mantC	luadiaa.	.					
Tree Stratum (Plot size: 30)	Absolute % Cover	DominantS pecies?	Status		Dominance Tes	st Worksheet:			
,	70 COVE	pecies:	Status		Number of Don	ninant Species	_		
					That Are OBL, F	ACW, or FAC:	1	·	(A)
1	-		-		Total Number o		4		(D)
		_ = Total Co	ver		Species Across		1	•	(B)
Sapling/Shrub Stratum (Plot size: 15)				Percent of Dom	•	100	Ο0/	/
					That Are OBL, F	ACW, or FAC:	100.	.0%	(A/B)
1.					Prevalence Ind	av Warkshaat:			
		= Total Co	wer						
		_ = 10tal C0	vei		Total % Cover o	of:	Multiply	by:	_
Herb Stratum (Plot size: 5					OBL species	0%	x 1	0.0%	_
Persicaria pensylvanica	85%	Υ	FACV	V	FACW species	100%	x 2 2	00.0%	
2. Bromus inermis	15%	N	FACI		FAC species	3%	x 3	9.0%	
3. Phalaris arundinacea	15%	N	FACV		FACU species	15%	x 4 6	50.0%	_
4. Asclepias speciosa	3%	N	FAC	<u> </u>		-	-		_
5					UPL species	0%		0.0%	_
	118%	= Total Co	ver		Column Totals:	118.0%	(A)2	269%	(B)
Woody Vine Stratum (Plot size: 15	1				Prevalence Ir	ndex = B/A =	2.2	8	
woody vine stratum (110t 312c. 15	1				Hudrophytic Va	egetation Indica	tors		_
1.					nyuropriyuc ve	egetation muica	tors.		
	-		-	<u></u>	<u>Y</u> 1 - Rapid Te	est for Hydrophy	tic Vegetat	tion	
		= Total Co	ver		Y 2 - Domina	nce Test if >50%			
					Y 3 - Prevaler	nce Index is ≤ 3.0)		
					Y 4 - Mornho	logical Adaptati	ons (Provid	le sunna	orting
						narks or on a se			71 (1116
						c Hydrophytic V			
					Indicators of hydr	ic soil and wetla	nd hydrolc	gy mus	t be
					present, unless di	sturbed or prob	ematic		
					Hydrophytic				
					Vegetation				
					Present?	Yes X	No		
Remarks: PEM									

Profile Desc	ription: (Desc	ribe to the	depth n	eeded 1	to document t	he ind	icator or co	nfirm the a	bsence of indicator	
Depth	Ma	atrix			Red	ox Fea	itures			
(inches)	Color:)	Col	or:	%	Type:	Loc:	Texture:	Remarks:
0-6	10YR 3/2	2 100)%						Clay Loam	
6-16	10YR 4/	2 90	%	10YF	R 4/6 1	10%	С	М	Clay Loam	
										
Type: C=Con	ncentration, D	=Depletion,	RM=Red	duced N	Matrix, CS=Cov	ered o	r Coated Sar	nd Grains	Location	n: PL=Pore Lining, M=Matrix
Hydric Soil I	ndicators: (A	pplicable to	all LRRs	, unles	s otherwise no	oted.)			Indicators for Proble	ematic Hydric Soils
Histoso	ol (A1)			Sa	andy Gleyed M	latrix (S	S4)		Coast Prairie Re	edoc (A16)
Histic E	pipedon (A2)			Sa	andy Redox (S	5)			Dark Surface (S	7)
Black H	istic (A3)			St	ripped Matrix	(S6)			Iron-Manganes	e Masses (F12)
Hydrog	en Sulfide (A4	1)		Lo	oamy Mucky M	1ineral	(F1)			ark Surface (TF12)
	ed Layers (A5))			oamy Gleyed N		(F2)		Other (Explain i	n Remarks)
	luck (A10)				epleted Matrix					
	ed Below Darl		L 1)		edox Dark Surf	•	•			
	ark Surface (A	-			epleted Dark S				Indicators of hydrop	
Sandy I	Mucky Minera	al (S1)		R	edox Depressi	ons (F8	3)			nust be present, unless
									disturbed or probler	natic.
Restrictive L	ayer (if prese	ent):								
Type: 1	NONE								Hydric Soil Present?	Yes X No
Depth (i	nches): NA	١								
Remarks:										
HYDROLO										
_	drology Indic									
1		ium of one r	equired	; check	all that apply)		(50)			ndicators (2 or more required)
	Water (A1)	,			Water-Staine					Soil Cracks (B6)
	ater Table (A2)			Aquatic Faur True Aquatic	-	-			e Pattern (B10)
Saturation	narks (B1)				True Aquatic Hydrogen Su					son Water Table (C2) Burrows (C8)
	nt Deposits (B	2)			Oxidized Rhizo		` '	ints (C3)		n Visible on Aerial Imagery (C9)
	nt Deposits (В posits (ВЗ)	۷)			Presence of			013 (03)		or Stressed Plants (D1)
 '	at or Crust (B4	1)			Recent Iron		, ,	Soils (C6)		phic Position (D2)
	posits (B5)	",			Thin Muck S			30113 (00)		utral Test (D5)
	on Visible on Ae	rial Imagery (B7)		Gauge or We				TAC NCC	20101 Test (55)
	Vegetated Cond		•		Other (Expla					
_ ' '	J	,	,							
Field Observ	vations:									
Surface Wat		Yes	No	X	Depth (inche	۰s): ا	NA			
Water Table		Yes			Depth (inche	_	NA NA	141-11	I I I and and a series of the	Von V N-
Saturation P		Yes			Depth (inche	_	NA NA	wetland	Hydrology Present?	Yes X No
	pillary fringe)	163	110 _		שכאנוו לוווכוור	.sj. <u>I</u>	11/1			
		stream guag	e. moni	toring w	vell, aerial pho	otos pr	evious inspe	ections) if a	available:	
	coraca bata (,=,	v	. cii, acriai piic	, 100, pi	271003 III3PC	20000101, 11 0		
Remarks:										

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC Investigator(s): E. Schwartz, P. Swartzinski		City/Cour	Sect	tion, Tov	State: <u>SD</u> vnship, Range:	Sam	ipling Da		
Landform (hillslope, terrace, etc.): depression	n				cave, convex, none			D02	
Slope (%): <5% Lat: Lat:			Long:			Dan NWI classificatio	tum: NA	D83	
Are climatic/hydrologic conditions on the site ty	nical for this	time of year?	2 Vas	Y		no, explain in R			
Are Vegetation No , Soil No , or Hydro			_						No
Are Vegetation No , Soil No , or Hydro					f needed, explain i				
SUMMARY OF FINDINGS – Attach site							feautre	s etc	
	No		iig poi	iit ioca	tions, transects	s, important	reautie	3, etc.	
				ls the Sa	mpled Area				
_		X			Wetland?	Yes	No X		
Wetland Hydrology Present? Yes _	No	X							
Remarks: Upland									
VEGETATION – Use scientific names of	plants								
<u>Tree Stratum</u> (Plot size: <u>30</u>)	Absolute % Cover	DominantS pecies?	Indica Status			est Worksheet: minant Species			
1					-	FACW, or FAC:	-	0	(A)
1					Total Number			1	(B)
Sapling/Shrub Stratum (Plot size: 15)	_ = Total Co	ver		Species Across Percent of Doi	minant Species			
					That Are OBL,	FACW, or FAC:	-	0.0%	(A/B)
1					Prevalence Inc	dex Worksheet	:		
		= Total Cov	ver		Total % Cover			iply by:	
Herb Stratum (Plot size: 5)									_
1. Bromus inermis	75%	Υ	FACI	1	OBL species	0%	_ x1	0.0%	_
Phleum pratense	20%	N	FACI		FACW species	0%	x 2	0.0%	_
3. Andropogon gerardii	15%	N	FAC		FAC species	15%	_ x 3	45.0%	
4.					FACU species	95%	_ x 4	380.0%	
4.	4400/				UPL species	0%	x 5	0.0%	_
	110%	= Total Co	ver		Column Totals	i: 110.0%	(A)	425%	(B)
Woody Vine Stratum (Plot size: 15	_)				Prevalence	Index = B/A =		3.86	
1.					Hydrophytic V	/egetation Indi	cators:		
		= Total Co	ver		N 1 - Rapid 7	Test for Hydropl	hytic Veg	etation	
		_			N 2 - Domin	ance Test if >50	%		
						ence Index is ≤ 3			
						ological Adapta		ovide supp	orting
						marks or on a s tic Hydrophytic			1)
					Indicators of hyd	Iric soil and wet	land hyd	rology mus	st be
					present, unless o	disturbed or pro	blematio		
					Hydrophytic Vegetation Present?	Yes	No	x	
Remarks: Upland									

Depth 1	∕latrix			R	edox Fe	atures						
(inches) Colo	:	%	Colo		%	Type:	Loc:	Tex	ture:	R	emarks:	
0-4 10YR 4	1/3 10	00%						Clay	Loam			
Type: C=Concentration,	D=Depletion	n, RM=Red	duced M	latrix, CS=	Covered	or Coated Sar	nd Grains		Location:	PL=Pore Li	ning, M=I	Matrix
Hydric Soil Indicators: (Applicable t	o all LRRs	. unless	otherwise	noted.)			Indicators	for Probler	natic Hvdri	c Soils	
Histosol (A1)		- un		ndy Gleye		(SA)			Prairie Red	•		
Histic Epipedon (A.	2)			ndy Gleye ndy Redox		(34)			Surface (S7)			
Black Histic (A3)	-,			ipped Ma					Manganese		2)	
Hydrogen Sulfide (A4)			amy Muck		l (F1)			Shallow Dar			
Stratified Layers (A				amy Gleye					(Explain in		,	
2 cm Muck (A10)	,			pleted Ma		` '			` '	,		
Depleted Below Da	rk Surface (A11)		dox Dark S		-6)						
Thick Dark Surface Sandy Mucky Mine	(A12)		De	pleted Da dox Depre	rk Surfac	e (F7)		wetland hy	of hydroph drology mu or problema	ust be prese		SS
Restrictive Layer (if pre	sent):											
Type: None	·									.,		
	NA		_					Hydric Soil	Present?	Yes	No	Х
Remarks:	** 1		_									
IYDROLOGY Wetland Hydrology Ind Primary Indicators (min		e required;	; check a			ives (B9)		Sec	condary Inc			equired
Wetland Hydrology Ind	imum of one	e required,	check a	all that app Water-St Aquatic F	ained Lea			Se	_Surface S	oil Cracks (I	36)	equired
Wetland Hydrology Ind Primary Indicators (min Surface Water (A1)	imum of one	e required,	: check a	Water-St	ained Lea auna (B1	3)		Se-	Surface So Drainage		36) .0)	equired
Wetland Hydrology Ind Primary Indicators (min Surface Water (A1) High Water Table (A	imum of one	e required;	check a	Water-St Aquatic F	ained Lea auna (B1 atic Plant	3) :s (B14)		Se	Surface So Drainage Dry-Seaso	oil Cracks (I Pattern (B1	36) .0) able (C2)	equired
Primary Indicators (min Surface Water (A1) High Water Table (A Saturation (A3)	imum of one	e required;	check a	Water-St Aquatic F True Aqu Hydroger	ained Lea auna (B1 atic Plant Sulfide (3) :s (B14)	ots (C3)	Se-	Surface Son Drainage Dry-Seaso Crayfish E	oil Cracks (I Pattern (B1 on Water Ta	36) .0) able (C2)	
Wetland Hydrology Ind Primary Indicators (min Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1)	imum of one	e required,	check a	Water-St. Aquatic F True Aqu Hydroger Oxidized R	ained Lea auna (B1 atic Plant Sulfide (hizospher	3) :s (B14) Odor (C1)	ots (C3)	Se	Surface Son Drainage Dry-Seaso Crayfish E Saturation	oil Cracks (I Pattern (B1 on Water Ta Burrows (C8	36) .0) able (C2) s) erial Image	ery (C9)
Primary Indicators (min Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust ((B2)	e required;	check a	Water-St. Aquatic F True Aqu Hydroger Oxidized R Presence	ained Lea auna (B1 atic Plant Sulfide (hizospher of Reduc	3) ss (B14) Odor (C1) es on Living Ro		Se-	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (I Pattern (B1 on Water Ta Burrows (C8 Visible on A or Stressed hic Positior	36) .0) able (C2) s) erial Imago Plants (D n (D2)	ery (C9)
Wetland Hydrology Ind Primary Indicators (min Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust (Iron Deposits (B5)	(B2) (B4)		check a	Water-St Aquatic F True Aqu Hydroger Oxidized R Presence Recent In Thin Muc	ained Lea auna (B1 atic Plant Sulfide (hizosphen of Reduc on Reduc k Surface	3) is (B14) Odor (C1) es on Living Roc ied Iron (C4) tion in Tilled		Se-	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (I Pattern (B1 on Water Ta Burrows (C8 Visible on A or Stressed	36) .0) able (C2) s) erial Imago Plants (D n (D2)	ery (C9)
Primary Indicators (min Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust (Iron Deposits (B5) Inundation Visible on	imum of one (B2) B4) Aerial Imagery	, (B7)	c check a	Water-St Aquatic F True Aqu Hydroger Oxidized R Presence Recent In Thin Muc Gauge or	ained Lea auna (B1 atic Plant Sulfide (hizospher of Reduc on Reduc k Surface Well Dat	3) Is (B14) Odor (C1) Es on Living Roc Ed Iron (C4) Ition in Tilled E (C7) a (D9)		Se-	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (I Pattern (B1 on Water Ta Burrows (C8 Visible on A or Stressed hic Positior	36) .0) able (C2) s) erial Imago Plants (D n (D2)	ery (C9)
Wetland Hydrology Ind Primary Indicators (min Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust (Iron Deposits (B5)	imum of one (B2) B4) Aerial Imagery	, (B7)	check a	Water-St Aquatic F True Aqu Hydroger Oxidized R Presence Recent In Thin Muc	ained Lea auna (B1 atic Plant Sulfide (hizospher of Reduc on Reduc k Surface Well Dat	3) Is (B14) Odor (C1) Es on Living Roc Ed Iron (C4) Ition in Tilled E (C7) a (D9)		Se-	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (I Pattern (B1 on Water Ta Burrows (C8 Visible on A or Stressed hic Positior	36) .0) able (C2) s) erial Imago Plants (D n (D2)	ery (C9)
Wetland Hydrology Ind Primary Indicators (min Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust (Iron Deposits (B5) Inundation Visible on Sparsely Vegetated Co	imum of one (B2) B4) Aerial Imagery	, (B7)	check a	Water-St Aquatic F True Aqu Hydroger Oxidized R Presence Recent In Thin Muc Gauge or	ained Lea auna (B1 atic Plant Sulfide (hizospher of Reduc on Reduc k Surface Well Dat	3) Is (B14) Odor (C1) Es on Living Roc Ed Iron (C4) Ition in Tilled E (C7) a (D9)		Sec	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (I Pattern (B1 on Water Ta Burrows (C8 Visible on A or Stressed hic Positior	36) .0) able (C2) s) erial Imago Plants (D n (D2)	ery (C9)
Wetland Hydrology Independent of Primary Indicators (min Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust (Iron Deposits (B5) Inundation Visible on Sparsely Vegetated Committed Committee (A) Sparsely Vegetated (A) Sparsely Ve	imum of one (B2) B4) Aerial Imagery oncave Surface	, (B7)		Water-St Aquatic F True Aqu Hydroger Oxidized R Presence Recent In Thin Muc Gauge or	ained Lea auna (B1 atic Plant Sulfide (hizospher of Reduc on Reduc k Surface Well Dat plain in F	3) Is (B14) Odor (C1) Es on Living Roc Ed Iron (C4) Ition in Tilled E (C7) a (D9)		Se-	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (I Pattern (B1 on Water Ta Burrows (C8 Visible on A or Stressed hic Positior	36) .0) able (C2) s) erial Imago Plants (D n (D2)	ery (C9)
Wetland Hydrology Independent of the North American Primary Indicators (min Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (Iron Deposits (B5) Inundation Visible on Sparsely Vegetated Constitution of the North American Present Field Observations:	imum of one (B2) B4) Aerial Imagery oncave Surface	/ (B7) e (B8)	X	Water-St Aquatic F True Aqu Hydroger Oxidized R Presence Recent Ir Thin Muc Gauge or Other (Ex	ained Lea auna (B1 atic Plant Sulfide (hizospher of Reduc on Reduc k Surface Well Dat plain in R	3) Is (B14) Odor (C1) Is on Living Robed Iron (C4) Ition in Tilled It (C7) Ition (D9) Ition (C9) It	Soils (C6)		Surface Son Drainage Dry-Sease Crayfish E Saturation Stunted of Geomorp FAC-Neut	oil Cracks (I Pattern (B1 on Water Ta Burrows (C8 Visible on A or Stressed hic Positior	36) .0) able (C2) s) erial Image Plants (D n (D2)	ery (C9) 1)
Primary Indicators (min Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust (Iron Deposits (B5) Inundation Visible on	(B2) (B2) Aerial Imagery oncave Surface Yes	/ (B7) e (B8) No		Water-St Aquatic F True Aqu Hydroger Oxidized R Presence Recent In Thin Muc Gauge or Other (Ex	ained Lea auna (B1 atic Plant Sulfide (hizospher of Reduc on Reduc k Surface Well Dat plain in F	3) Is (B14) Odor (C1) Is on Living Roced Iron (C4) Ition in Tilled (C7) Ition (D9) Itemarks)	Soils (C6)	Se-	Surface Son Drainage Dry-Sease Crayfish E Saturation Stunted of Geomorp FAC-Neut	oil Cracks (I Pattern (B1 on Water Ta Burrows (CE Visible on A or Stressed hic Position rral Test (D5	36) .0) able (C2) s) erial Image Plants (D n (D2)	ery (C9) 1)
Wetland Hydrology Indeprimary Indicators (min Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (Iron Deposits (B5) Inundation Visible on Sparsely Vegetated Co	(B2) Aerial Imagery oncave Surface Yes Yes Yes Yes Yes	/ (B7) e (B8) No _ No _ No _		Water-St Aquatic F True Aqu Hydroger Oxidized R Presence Recent In Thin Muc Gauge or Other (Ex	ained Lea auna (B1 atic Plant i Sulfide (hizospher of Reduc on Reduc k Surface Well Dat plain in F	3) ss (B14) Odor (C1) es on Living Roi ed Iron (C4) tion in Tilled se (C7) a (D9) semarks) NA NA NA NA	Soils (C6) Wetland	l Hydrology	Surface Son Drainage Dry-Sease Crayfish E Saturation Stunted of Geomorp FAC-Neut	oil Cracks (I Pattern (B1 on Water Ta Burrows (CE Visible on A or Stressed hic Position rral Test (D5	36) .0) able (C2) s) erial Image Plants (D n (D2)	ery (C9) 1)

_	rpical for this ology No ology No map show X No X No	time of year? significantly naturally pro ing sampli	Section Sectin Section Section Section Section Section Section Section Section	Station, Town lef (concarding X led? Are lic? (if r	ate: SD ship, Range: ve, convex, none) No No (if n "Normal Circums needed, explain in cons, transects,	Sampl : Convex Datur WI classification: o, explain in Ren tances" present	m: NAD83 narks.) ? Yes	X N	
Wetland Hydrology Present? Yes _ Remarks:	X No								
PEM WITHIN ROW									
VEGETATION – Use scientific names of Tree Stratum (Plot size: 30)	Absolute % Cover	DominantS pecies?	Indicato Status	or	Dominance Tes				
1		= Total Co			That Are OBL, F Total Number of Species Across	ACW, or FAC: of Dominant	1 1		A) B)
Sapling/Shrub Stratum (Plot size: 15)	= 10tal co	vei		Percent of Dom That Are OBL, F	ninant Species	100.0	<u>)%</u> (<i>i</i>	A/B)
1		= Total Co	ver		Prevalence Ind		Multiply b	by:	
Herb Stratum (Plot size: 5					OBL species	15%		5.0%	
1. Phalaris arundinacea	90%	Υ	FACW	,	FACW species	90%	x 2 180	0.0%	•
2. Schoenoplectus acutus	15%	N	OBL		FAC species	0%	x 3 0.	.0%	
3					FACU species	0%	x 4 0.	.0%	
	105%	= Total Co	ver		UPL species	0%	x 5 0.	.0%	
Woody Vine Stratum (Plot size: 15	_)				Column Totals:	105.0%	(A) 19	95%	(B)
1.					Prevalence Ir		1.86		. ` ,
		= Total Co	ver		Hydrophytic Ve	egetation Indicat	ors:		
					Y 1 - Rapid Te	est for Hydrophy	tic Vegetation	on	
					Y 2 - Domina	nce Test if >50%			
					Y 3 - Prevaler	nce Index is ≤ 3.0	l		
					data in Ren		erate sheet egetation (E nd hydrolog	t) xplain)	
					Hydrophytic Vegetation Present?	Yes X	No	_	
Remarks: PEM									

Depth	Mat	rix			Redox	Features				
inches)	Color:	%	<u></u>	Color:	%	Typ	oe: l	-oc:	Texture:	Remarks:
0-16	10YR 2/1	90	%	10YR 4/6	10	% C		М	Clay Loam	
pe: C=Conc	centration, D=[Depletion,	RM=Re	duced Matrix	, CS=Cover	ed or Coate	d Sand Gra	ins	Location: P	PL=Pore Lining, M=Matrix
dric Soil In	dicators: (App	licable to	all LRRs	, unless othe	rwise note	ed.)		ı	ndicators for Problem	atic Hydric Soils
Black His Hydroge Stratified 2 cm Mu Depleted X Thick Da	pipedon (A2)	2)	11)	Sandy I Strippe Loamy Loamy Deplete Redox Deplete	Gleyed Mat Redox (S5) d Matrix (S Mucky Min Gleyed Ma ed Matrix (I Dark Surfac ed Dark Sur Depression	6) leral (F1) trix (F2) F3) le (F6) face (F7)		٧	Coast Prairie Redo Dark Surface (S7) Iron-Manganese N Very Shallow Dark Other (Explain in F	Masses (F12) Surface (TF12) Remarks) tic vegetation and st be present, unless
estrictive La Type: <u>N</u> Depth (in								ŀ	Hydric Soil Present?	Yes <u>X</u> No
emarks: 3	3 IN ONE LAYEF	₹								
YDROLOG Vetland Hyd rimary Indic	i Y Irology Indicat ators (minimu	ors	equired			Leaves (RQ)			•	cators (2 or more required)
YDROLOG Vetland Hyd rimary Indic. Surface V High Wat X Saturatio Water Ma Sediment Drift Depo	Irology Indicatestators (minimus Vater (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4)	ors m of one r	B7)	Material Mat	er-Stained atic Fauna e Aquatic P rogen Sulfi ized Rhizosp sence of Re ent Iron Re I Muck Surf ge or Well	lants (B14) de Odor (C1 pheres on Livin duced Iron (duction in T face (C7)	.) ng Roots (C3 (C4) illed Soils ((Surface Soi Drainage P Dry-Seasor Crayfish Bu Saturation V	il Cracks (B6) lattern (B10) n Water Table (C2) urrows (C8) lisible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2)

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC		City/Cour	nty: <u>Deue</u>		r ate: SD		npling Da		
Investigator(s): E. Schwartz, P. Swartzinski			Sectio	n, Town	ship, Range:		,,		
Landform (hillslope, terrace, etc.): depression	n	l	Local relie	f (conca	ve, convex, none):	Linear Sl	оре		
Slope (%): <5% Lat:			Long:			Da	tum: NA	ND83	
Soil Map Unit Name:					N\	NI classificatio	n:		
Are climatic/hydrologic conditions on the site ty	pical for this	time of year?	? Yes	Χ	No(if n	o, explain in R	emarks.))	
Are Vegetation No , Soil No , or Hydro	ology No	significantly	disturbed	d? Are	"Normal Circums	tances" prese	nt? Yes	X	No
Are Vegetation No , Soil No , or Hydro	ology No	naturally pro	oblematic [*]	? (if r	needed, explain in	Remarks.)			
SUMMARY OF FINDINGS – Attach site	man showi	ing samplii	ng noint	locati	ons, transects.	important	feautre	es. etc.	
	No				,,			,	
			ls t	the Sam	pled Area				
_		X			/etland?	Yes	No X	<u> </u>	
Wetland Hydrology Present? Yes _	No	X							
Remarks:									
Upland									
VEGETATION – Use scientific names of	plants								
Trac Stratum (Blot size) 20	Absolute	DominantS		r	Dominance Tes	t Worksheet:			
<u>Tree Stratum</u> (Plot size: <u>30</u>)	% Cover	pecies?	Status		Number of Don	ninant Species	;		
					That Are OBL, F	•		0	(A)
1					Total Number o	of Dominant			
		= Total Co	ver		Species Across	All Strata:		2	(B)
Sapling/Shrub Stratum (Plot size: 15	١				Percent of Dom	inant Species			
Japinig/3ii ab Strataiii (1 lot 3ize. 15	/				That Are OBL, F	ACW, or FAC:		0.0%	(A/B)
1					Prevalence Ind	ex Worksheet	::		
		= Total Co	ver		Total % Cover o	of:	Mul	tiply by:	
Herb Stratum (Plot size: 5					OBL species	0%	x 1	0.0%	_
1. Bromus inermis	80%	Υ	FACU		FACW species	0%	x 2	0.0%	
2. Phleum pratense	25%	Υ	FACU		·	-	_		_
3.					FAC species	0%	_ x 3	0.0%	
J				_	FACU species	105%	_ x 4	420.0%	
	105%	_ = Total Co	ver		UPL species	0%	x 5	0.0%	
Woody Vine Stratum (Plot size: 15	_)				Column Totals:	105.0%	(A)	420%	(B)
					Prevalence Ir	· ·		4.00	
1					Trevalence ii	idex = b/rt =	-	7.00	
		= Total Co	ver		Hydrophytic Ve	getation Indi	cators:		
		= 10tal co	vci		N 1 - Rapid Te	act for Hydron	hytic Vec	retation	
						, ,	,	setation	
					N 2 - Dominai	nce Test if >50	1%		
					N 3 - Prevaler	nce Index is ≤ 3	3.0		
					N 4 - Morpho	logical Adapta	itions (Pr	ovide supp	orting
						narks or on a s			
					N Problemation		_		
					Indicators of hydr				st be
					present, unless di	sturbed or pro	blematic	į	
					Hydrophytic				
					Vegetation	W	8 1 -	v	
					Present?	Yes	No _	Х	
Remarks: Upland									

Profile Descri	ption: (Descri	be to the d	epth nee	eded to doo	ument the i	ndicator or co	nfirm the al	bsence of indicator			
Depth	Mat	rix			Redox F	eatures					
(inches)	Color:	%		Color:	%	Type:	Loc:	Texture:	R	emarks:	
0-4	10YR 4/4	1009	%					Clay Loam			
4-16	10YR 3/2	1009	%					Clay Loam			
	,										
Type: C=Conc	entration, D=I	Depletion, R	M=Redu	ıced Matrix	, CS=Covered	d or Coated Sa	nd Grains	Location:	PL=Pore Lir	ning, M=M	latrix
Hydric Soil Inc	dicators: (App	licable to a	II LRRs,	unless othe	rwise noted	.)		Indicators for Problem	natic Hydri	c Soils	
Histosol	(A1)			Sandy G	Sleyed Matri	x (S4)		Coast Prairie Red	oc (A16)		
Histic Epi	ipedon (A2)		_	Sandy F	Redox (S5)			Dark Surface (S7)			
Black His	tic (A3)		_	Strippe	d Matrix (S6))		Iron-Manganese	Masses (F1	2)	
	n Sulfide (A4)		_		Mucky Mine			Very Shallow Dar		F12)	
	Layers (A5)			-	Gleyed Matr			Other (Explain in	Remarks)		
2 cm Mu			_		ed Matrix (F3						
	Below Dark S	•			Dark Surface	` '					
l ———	rk Surface (A1		_		ed Dark Surfa			Indicators of hydrophy			
Sandy ivi	ucky Mineral	(31)	_	Kedox I	Depressions	(۲۵)		wetland hydrology mudisturbed or problema		ent, unless	i
								uistarbea or problems			
Restrictive La		t):									
Type: No				_				Hydric Soil Present?	Yes	No	X
Depth (in				=							
Remarks: U	pland										
HYDROLOG	Υ										
Wetland Hydi											
Primary Indica		m of one re	quired;					Secondary Inc			quired)
Surface W					er-Stained L				oil Cracks (E	•	
_	er Table (A2)			•	atic Fauna (E	•			Pattern (B1		
Saturation					Aquatic Pla				n Water Ta		
Water Ma	` '				rogen Sulfide	e Odor (C1) eres on Living Ro	ots (C2)		urrows (C8 Visible on Ae	•	n/(C0)
Drift Depo	Deposits (B2)					uced Iron (C4)	1013 (C3)		r Stressed F		
	or Crust (B4)					uction in Tilled	Soils (C6)		hic Position)
Iron Depo					Muck Surfa		30113 (CO)		ral Test (D5		
	Visible on Aeri	al Imagery (B	7)		ge or Well D				iai iest (DS	,	
	egetated Conca		-		er (Explain in						
					` '	,					
Field Observa	tions:										
Surface Water	r Present?	Yes	No _	X Dep	th (inches):	NA					
Water Table P	Present?	Yes	No _	X Dep	th (inches):	NA	Wetland	Hydrology Present?	Yes	No	X
Saturation Pre		Yes	No _	X Dep	th (inches):	NA				_	
(includes capi											
Describe Reco	orded Data (st	ream guage	, monito	oring well, a	erial photos,	, previous inspe	ections), if a	available:			
Remarks:											

_	pical for this blogy No blogy No map show	time of year? significantly naturally pro ing sampli	Sectocal re Long: Yes disturb oblema	St tion, Town lief (conca X ned? Ard tic? (if	ate: SD aship, Range: ave, convex, none) N No (if re "Normal Circums needed, explain in ions, transects,	Sample: Convex Datu WI classification: no, explain in Rer stances" present Remarks.)	m: NAD83 marks.) ? Yes	
Remarks: PEM VEGETATION – Use scientific names of Tree Stratum (Plot size: 30)	plants Absolute % Cover	DominantS pecies?	Indica Status		Dominance Te			
1)	= Total Co	 ver		That Are OBL, F Total Number of Species Across Percent of Don That Are OBL, F	FACW, or FAC: of Dominant All Strata: ninant Species	1 100.09	(A) (B) % (A/B)
1. Herb Stratum (Plot size: 5) 1. Phalaris arundinacea 2. Urtica dioica 3. Helianthus annuus 4. Woody Vine Stratum (Plot size: 15	90% 15% 8% 113%	= Total Cov	FACV FACV	N	Total % Cover of OBL species FACW species FAC species FACU species UPL species Column Totals:	0% 105% 0% 8% 0%	x 2 210 x 3 0. x 4 32 x 5 0.	0.0% 0.0% 0.0% 2.0% 0.0% 42% (B)
1.		_ = Total Co	ver		Hydrophytic Vo	egetation Indica est for Hydrophy nce Test if >50% nce Index is ≤ 3.0 blogical Adaptationarks or on a sep c Hydrophytic Voic soil and wetla	tors: Tic Vegetation Ons (Provide perate sheet egetation (Example)	on supporting y xplain)
Remarks: PEM					Hydrophytic Vegetation Present?	Yes X	No	-

Profile Description: (Desc	ribe to the	depth nee	eded to doc	ument the i	ndicator or co	nfirm the a	bsence of indicator	
·	atrix			Redox F	eatures			_
(inches) Color:		6	Color:	%	Type:	Loc:	Texture:	Remarks:
0-16 10YR 2/	1 100	0%					Clay Loam	
Type: C=Concentration, D	=Depletion,	RM=Redu	ıced Matrix,	CS=Covered	d or Coated Sa	nd Grains	Location:	PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (A	pplicable to	all LRRs, u	unless othe	wise noted	.)		Indicators for Problem	natic Hydric Soils
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4 Stratified Layers (A5 2 cm Muck (A10) Depleted Below Dari X Thick Dark Surface (A	l) c Surface (A: (A12)	- - -	Sandy G Sandy R Stripped Loamy N Loamy O Deplete Redox D Deplete	leyed Matri: edox (S5) I Matrix (S6) Mucky Minei Gleyed Matri d Matrix (F3 Park Surface d Dark Surfa	x (S4) ral (F1) ix (F2) i) (F6) ace (F7)		Coast Prairie Redo Dark Surface (S7) Iron-Manganese I Very Shallow Darl Other (Explain in	oc (A16) Masses (F12) k Surface (TF12) Remarks)
Sandy Mucky Minera	al (S1)	_	Redox D	epressions ((F8)		wetland hydrology mu disturbed or problema	
Restrictive Layer (if preserving property NONE Depth (inches): NA Remarks: PEM			_				Hydric Soil Present?	Yes <u>X</u> No
HYDROLOGY Wetland Hydrology Indic Primary Indicators (minin Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) X Inundation Visible on A6 Sparsely Vegetated Con	num of one i 2) I) rial Imagery ((B7)	Wate Aqua True Hydr Oxidi Pres Rece Thin	er-Stained Le atic Fauna (B Aquatic Plan ogen Sulfide zed Rhizosphe ence of Redu	ata) nts (B14) e Odor (C1) eres on Living Rouced Iron (C4) uction in Tilled ce (C7) ata (D9)		Surface So Drainage I Dry-Seaso Crayfish B Saturation	icators (2 or more required) pil Cracks (B6) Pattern (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) r Stressed Plants (D1) nic Position (D2) ral Test (D5)
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (Yes	No No No No	X Dept	h (inches): h (inches): h (inches):	NA NA NA previous insp		I Hydrology Present?	Yes <u>X</u> No
Remarks:								

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC		City/Cour		Sta	ate: SD		npling Da	-	
Investigator(s): E. Schwartz, P. Swartzinski			Sectio	n, Town	ship, Range:		,,		
Landform (hillslope, terrace, etc.): <u>depression</u>	n	l	Local relie	f (conca	ve, convex, none)	: Linear Sl	эре		
Slope (%): <5% Lat:			Long:				tum: NA	D83	
Soil Map Unit Name:						WI classificatio			
Are climatic/hydrologic conditions on the site ty						o, explain in R			
Are Vegetation No , Soil No , or Hydro							nt? Yes	X	No
Are Vegetation No , Soil No , or Hydro					needed, explain in				
SUMMARY OF FINDINGS – Attach site	map show	ing samplii	ng point	locati	ons, transects,	important	feautre	es, etc.	
Hydrophytic Vegetation Present? Yes _	No	X							
Hydric Soil Present? Yes	No	Χ			pled Area	W	N - V	,	
Wetland Hydrology Present? Yes		X	wit	thin a W	/etland?	Yes	NO X	<u>. </u>	
Remarks:									
Upland									
Органи									
VEGETATION – Use scientific names of	plants								
	Absolute	DominantS	Indicator	r	Dominance Tes	rt Markshaati			
<u>Tree Stratum</u> (Plot size: <u>30</u>)	% Cover	pecies?	Status						
					Number of Don That Are OBL, F	•		0	(A)
1.					Total Number of				(* ')
		= Total Co	·····	_	Species Across			2	(B)
		= 10tal Co	ver		Percent of Dom				(-)
Sapling/Shrub Stratum (Plot size: 15)				That Are OBL, F	•		0.0%	(A/B)
1.					Prevalence Ind	ex Worksheet			
		= Total Co	ver		Total % Cover of			tiply by:	
Herb Stratum (Plot size: 5)								tiply by:	
	600/	.,	EA CI I		OBL species	0%	_ x 1	0.0%	_
1. Phleum pratense	60%	Y	FACU		FACW species	0%	x 2	0.0%	
2. Bromus inermis	45%	Y	FACU		FAC species	0%	x 3	0.0%	
3					FACU species	105%	x 4	420.0%	
	105%	= Total Co	ver		UPL species	0%	x 5	0.0%	_
Woody Vine Stratum (Plot size: 15)				Column Totals:		_	420%	(B)
	-						_ (^)		(b)
1.					Prevalence Ir	ndex = B/A =		4.00	
					Hydrophytic Ve	egetation Indi	cators:		
		_ = Total Co	ver						
					N 1 - Rapid Te	est for Hydrop	nytic Veg	getation	
					N 2 - Domina	nce Test if >50	1%		
					N 3 - Prevaler	nce Index is ≤ 3	3.0		
					N 4 - Morpho	logical Adapta	tions (Pr	ovide supp	orting
						narks or on a s			Ü
					N Problemati		_		
					Indicators of hydr		-		st be
					present, unless di	sturbed or pro	blematio	:	
				-					
					Hydrophytic				
					Vegetation				
					Present?	Yes	No	Х	
Remarks: Upland									

Profile Description: (Desc	ribe to the	depth n	eeded t	o document the i	ndicator or co	nfirm the a	bsence of indicator	
Depth Ma	ntrix			Redox F	eatures			
(inches) Color:	9	6	Col	or: %	Type:	Loc:	Texture:	Remarks:
0-16 10YR 4/2	2 10	0%					Loam	
Type: C=Concentration, D	=Depletion,	, RM=Red	duced N	Matrix, CS=Covered	d or Coated Sa	nd Grains	Location:	PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (Ap							Indicators for Proble	
Histosol (A1)	, p	u		ndy Gleyed Matri			Coast Prairie Rec	•
Histic Epipedon (A2)				ndy Redox (S5)	X (34)		Dark Surface (S7	, ,
Black Histic (A3)				ripped Matrix (S6))		Iron-Manganese	
Hydrogen Sulfide (A4	.)			amy Mucky Mine			Very Shallow Da	
Stratified Layers (A5)			Lo	amy Gleyed Matr	ix (F2)		Other (Explain in	Remarks)
2 cm Muck (A10)			De	epleted Matrix (F3	3)			
Depleted Below Dark	Surface (A	11)	Re	edox Dark Surface	(F6)			
Thick Dark Surface (A	•			epleted Dark Surfa			Indicators of hydroph	ytic vegetation and
Sandy Mucky Minera	l (S1)		Re	edox Depressions	(F8)		wetland hydrology m disturbed or problem	ust be present, unless atic.
Restrictive Layer (if prese	nt):							
Type: None							Hydric Soil Present?	Yes No X
Depth (inches): NA							rryanic son rresent.	163110X
Remarks: Upland								
HYDROLOGY								
Wetland Hydrology Indica	ators							
Primary Indicators (minim	um of one	required	; check	all that apply)			Secondary Inc	dicators (2 or more required)
Surface Water (A1)				_Water-Stained Lo	eaves (B9)		Surface S	oil Cracks (B6)
High Water Table (A2))			Aquatic Fauna (E	313)		Drainage	Pattern (B10)
Saturation (A3)				_True Aquatic Pla				on Water Table (C2)
Water Marks (B1)				_Hydrogen Sulfide	, ,			Burrows (C8)
Sediment Deposits (B	2)		-	Oxidized Rhizospho		oots (C3)		Visible on Aerial Imagery (C9)
Drift Deposits (B3)	`			Presence of Red	` '	Soils (CC)		or Stressed Plants (D1)
Algal Mat or Crust (B4 Iron Deposits (B5))		-	Recent Iron Redu Thin Muck Surfa		Solis (Co)		ohic Position (D2) tral Test (D5)
Inundation Visible on Ae	rial Imagery	(B7)		Gauge or Well D	• •		FAC-Neur	trai rest (DS)
Sparsely Vegetated Cond	• ,			Other (Explain in				
				_				
Field Observations:								
Surface Water Present?	Yes	No	X	Depth (inches):	NA			
Water Table Present?		No		Depth (inches):	NA	Wetland	d Hydrology Present?	Yes No X
Saturation Present?	Yes	No	Х	Depth (inches):	NA			
(includes capillary fringe)	troom au-	no mani	torina	voll agrical rehates	provious inse	octions\ if	available	
Describe Recorded Data (tream gua	ge, moni	toring w	reii, aeriai photos,	, previous insp	ections), if a	avallable:	
Remarks:								

_	rpical for this ology No ology No map show	time of year? significantly naturally pro ing samplin	Section Local relief Long: Yes disturbed oblematica ng point	State: SD n, Township, Range: f (concave, convex, n X No Are "Normal Circ f (if needed, explain	one): Convex Datu NWI classification (if no, explain in Recumstances" present	narks.) ? Yes X eautres, etc.	021
Remarks: PEM VEGETATION – Use scientific names of Tree Stratum (Plot size: 30)		DominantS pecies?	Indicator Status	Dominanc	e Test Worksheet:		
1)	= Total Cov	ver	That Are O Total Num Species Ac Percent of	F Dominant Species BL, FACW, or FAC: ber of Dominant ross All Strata: Dominant Species BL, FACW, or FAC:	1 1 100.0%	(A) (B) (A/B)
1. Herb Stratum (Plot size: 5) 1. Phalaris arundinacea 2. Typha angustifolia 3.	95% 7% 102%	= Total Cov	FACW OBL	Total % Co OBL specie FACW specie FAC specie FACU specie UPL specie	es 7% cies 95% es 0% ies 0%	Multiply by: x 1 7.0% x 2 190.0% x 3 0.0% x 4 0.0% x 5 0.0%	
Woody Vine Stratum (Plot size: 15		= Total Cov	ver	Column To Prevaler Hydrophyt Y 1 - Rap Y 2 - Doo Y 3 - Pre Y 4 - Mo data ir N Proble Indicators of present, unle	tals: 102.0% nce Index = B/A = tic Vegetation Indicated and Test for Hydrophy minance Test if >50% valence Index is ≤ 3.0 rphological Adaptation Remarks or on a segment Hydrophytic Verbydric soil and wetlates disturbed or probetic	(A) 197% 1.93 tors: rtic Vegetation ons (Provide supporate sheet) egetation (Explain on hydrology mu	n)
Remarks: PEM				Vegetation Present?	Yes X	No	

,. '.	Matrix				x Features				-	Dama aulua :
inches) Colo	<u>: </u>	%	Colc	or:	<u>% Typ</u>	e: Loc:	<u></u>	xture:		Remarks:
0-16 10YR 2	2/1						Cla	iy Loam		
ype: C=Concentration	D=Depletio	n, RM=Re	duced M	atrix, CS=Cove	ered or Coated	d Sand Grains		Location:	PL=Pore Li	ning, M=Matrix
ydric Soil Indicators:	Applicable t	to all LRRs	, unless	otherwise no	ted.)		Indicators	s for Problen	natic Hydri	ic Soils
Histosol (A1) Histic Epipedon (A Black Histic (A3) Hydrogen Sulfide (Stratified Layers (A 2 cm Muck (A10) Depleted Below Do X Thick Dark Surface Sandy Mucky Mine	A4) 5) ark Surface ((A12)	A11)	Sar Str Loa Loa De Rec	ndy Gleyed Mandy Redox (S5 ipped Matrix (amy Mucky M amy Gleyed M pleted Matrix dox Dark Surfa pleted Dark Su dox Depressio) (S6) ineral (F1) atrix (F2) (F3) ace (F6) urface (F7)		Dark Iron- Very Othe	at Prairie Red Surface (S7) Manganese Shallow Dar er (Explain in s of hydrophy nydrology mu or problema	Masses (F2 k Surface (Remarks) ytic vegeta ust be pres	TF12) tion and
estrictive Layer (if pre Type: None Depth (inches):	sent):							il Present?		X No
emarks: PEM										
Remarks: PEM										
YDROLOGY Vetland Hydrology Inc										
YDROLOGY Vetland Hydrology Incomory Indicators (min Surface Water (A1) High Water Table (AX) Saturation (A3) Water Marks (B1)	imum of one	e required		Water-Staine Aquatic Faun True Aquatic Hydrogen Sul	a (B13) Plants (B14) fide Odor (C1)	•	S (Surface So Drainage Dry-Seaso Crayfish B	oil Cracks (Pattern (B: on Water T Jurrows (C	B6) 10) able (C2) 8)
/DROLOGY /etland Hydrology Inc rimary Indicators (min Surface Water (A1) High Water Table (Saturation (A3)	imum of one (B2) B4) Aerial Imager	y (B7)		Water-Staine Aquatic Faund True Aquatic	a (B13) Plants (B14) fide Odor (C1) spheres on Livin teduced Iron (eduction in Ti rface (C7)	ng Roots (C3) (C4) illed Soils (C6)	- - - -	Surface So Drainage Dry-Seaso Crayfish B Saturation	oil Cracks (Pattern (B: on Water T: durrows (CE Visible on A r Stressed hic Position	10) able (C2) 8) serial Imagery (C9) Plants (D1) n (D2)
YDROLOGY Vetland Hydrology Inc rimary Indicators (min Surface Water (A1) High Water Table (A) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust (Iron Deposits (B5) Inundation Visible on Sparsely Vegetated Co	(B2) Aerial Imager oncave Surface Yes Yes	y (B7) e (B8) No No		Water-Staine Aquatic Fauna True Aquatic Hydrogen Sul Oxidized Rhizos Presence of R Recent Iron R Thin Muck Su Gauge or Wel Other (Explain	a (B13) Plants (B14) fide Odor (C1) spheres on Livin deduced Iron (eduction in Ti rface (C7) II Data (D9) n in Remarks) S): NA S): NA	ng Roots (C3) (C4) illed Soils (C6)	- - - -	Surface So Drainage Dry-Seaso Crayfish B Saturation Stunted o X Geomorp X FAC-Neut	oil Cracks (Pattern (B: Pattern (B: on Water T Surrows (Ci Visible on A r Stressed hic Position ral Test (D!	B6) 10) able (C2) 8) serial Imagery (C9) Plants (D1) n (D2)
YDROLOGY Vetland Hydrology Inc rimary Indicators (min Surface Water (A1) High Water Table (AX Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust (Iron Deposits (B5) Inundation Visible on	(B2) Aerial Imager oncave Surface Yes Yes Yes Yes	y (B7) e (B8)		Water-Staine Aquatic Fauna True Aquatic Hydrogen Sul Oxidized Rhizos Presence of R Recent Iron R Thin Muck Su Gauge or We Other (Explain	a (B13) Plants (B14) fide Odor (C1) spheres on Livin deduced Iron (eduction in Ti rface (C7) II Data (D9) n in Remarks) S): NA S): NA	ng Roots (C3) (C4) illed Soils (C6)		Surface So Drainage Dry-Seaso Crayfish B Saturation Stunted o X Geomorp X FAC-Neut	oil Cracks (Pattern (B: Pattern (B: on Water T Surrows (Ci Visible on A r Stressed hic Position ral Test (D!	B6) 10) able (C2) 8) serial Imagery (C9) Plants (D1) n (D2) 5)

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC		City/Cour	nty: <u>Deue</u>		tate: SD		npling Da	-	
Investigator(s): E. Schwartz, P. Swartzinski			Sectio	n, Tow	nship, Range:		, ,		
Landform (hillslope, terrace, etc.): depression	on	Į			ave, convex, none	e): Linear S			
Slope (%): <5% Lat:					, ,	· -	itum: NA	D83	
Soil Map Unit Name:						NWI classificati	on:		
Are climatic/hydrologic conditions on the site ty	pical for this	time of year?	? Yes	Χ	No (if	no, explain in I	Remarks.)		
Are Vegetation No , Soil No , or Hydro	ology No	significantly	disturbed	d? Ar	e "Normal Circum	stances" prese	nt? Yes	X	No
Are Vegetation No , Soil No , or Hydro	ology No	naturally pro	oblematic [*]	? (if	needed, explain i	n Remarks.)			
SUMMARY OF FINDINGS – Attach site	map show	ing samplii	ng point	locat	ions. transects	s. important	feautre	es. etc.	
	No					<u> </u>			
		X	ls t	the San	npled Area				
_					Wetland?	Yes	No X	<u> </u>	
	No	X							
Remarks: Upland									
VEGETATION – Use scientific names of	•				1				
Tree Stratum (Plot size: 30)	Absolute % Cover	DominantS pecies?	Indicator Status	r	Dominance To	est Worksheet	:		
	70 COVC1	pecies:	Status			minant Specie		•	(4)
						FACW, or FAC		0	(A)
1				_	Total Number			2	(D)
		_ = Total Co	ver		Species Across			2	(B)
Sapling/Shrub Stratum (Plot size: 15)					FACW, or FAC		0.0%	(A/B)
1				_	Prevalence In	dex Workshee	t:		
		= Total Co	ver		Total % Cover	of:	Mult	tiply by:	
Herb Stratum (Plot size: 5)					OBL species	0%	x 1	0.0%	
Phleum pratense	55%	Υ	FACU		FACW species	0%	x 2	0.0%	
2. Bromus inermis	35%	Υ	FACU		· ·				_
3.					FAC species	0%	x 3	0.0%	_
	000/	- Total Co		_	FACU species	90%	x 4	360.0%	_
	90%	= Total Co	ver		UPL species	0%	x 5	0.0%	
Woody Vine Stratum (Plot size: 15	_)				Column Totals	90.0%	(A)	360%	(B)
					Prevalence	Index = B/A =		4.00	
1	-			_	Hydrophytic \	/egetation Ind	icators:		_
		_ = Total Co	ver			Test for Hydror		otation	
						, ,	, ,	ctation	
						ance Test if >5			
					N 3 - Prevale	ence Index is ≤	3.0		
					data in Re	ological Adapt marks or on a tic Hydrophytic	seperate:	sheet)	
					Indicators of hyd present, unless of				st be
					Hydrophytic Vegetation Present?	Yes	No	x	
Remarks: Upland									

Profile Description: (Desc	ribe to the	depth n	eeded t	o document the i	indicator or co	nfirm the a	bsence of indicator		
Depth Ma	atrix			Redox F	eatures				
(inches) Color:	9	6	Col	or: %	Type:	Loc:	Texture:	R	emarks:
0-16 10YR 3/1	10	0%					Clay Loam		
Type: C=Concentration, D	=Depletion	, RM=Red	duced N	Matrix, CS=Covere	d or Coated Sa	nd Grains	Location:	PL=Pore Lir	ning, M=Matrix
Hydric Soil Indicators: (Ap							Indicators for Proble		
Histosol (A1)	, pineable to	- an - an -		indy Gleyed Matri			Coast Prairie Red	•	
Histic Epipedon (A2)				indy Gleyed Matri indy Redox (S5)	IX (34)		Dark Surface (S7	. ,	
Black Histic (A3)				ripped Matrix (S6))		Iron-Manganese		2)
Hydrogen Sulfide (A4	.)			amy Mucky Mine			Very Shallow Da		
Stratified Layers (A5)				amy Gleyed Matr			Other (Explain in		,
2 cm Muck (A10)				epleted Matrix (F3				•	
Depleted Below Dark	Surface (A	11)	Re	edox Dark Surface	(F6)				
Thick Dark Surface (A	(12)		De	epleted Dark Surfa	ace (F7)		Indicators of hydroph	vtic vegetat	ion and
Sandy Mucky Minera	l (S1)		Re	edox Depressions	(F8)		wetland hydrology m disturbed or problem	ust be prese	
Restrictive Layer (if prese	nt):								
Type: None							Hydric Soil Present?	Voc	No Y
Depth (inches): NA							nyunc son Present?	Yes	NoX
Remarks: Upland						-			
HYDROLOGY									
Wetland Hydrology Indica	ators								
Primary Indicators (minim		required	; check	all that apply)			Secondary In	dicators (2 c	or more required
Surface Water (A1)		•		Water-Stained L	eaves (B9)			oil Cracks (E	
High Water Table (A2))			Aquatic Fauna (E	313)		Drainage	Pattern (B1	0)
Saturation (A3)				_True Aquatic Pla	nts (B14)		Dry-Seas	on Water Ta	ıble (C2)
Water Marks (B1)				_Hydrogen Sulfide				Burrows (C8	•
Sediment Deposits (B	2)			Oxidized Rhizosph		oots (C3)			erial Imagery (C9)
Drift Deposits (B3)				_Presence of Red	` '	/>		or Stressed I	` '
Algal Mat or Crust (B4	.)			_Recent Iron Red		Soils (C6)		hic Position	
Iron Deposits (B5) Inundation Visible on Ae	rial Imagony	(D7)		_Thin Muck Surfa	` '		FAC-Neu	tral Test (D5	o)
Sparsely Vegetated Cond	• .			Gauge or Well D Other (Explain in					
		()		_Other (Explain iii	r nemarks,				
Field Observations:									
Surface Water Present?	Yes	No	Χ	Depth (inches):	NA				
Water Table Present?	Yes	No	Х	Depth (inches):	NA	Wetland	d Hydrology Present?	Yes	No X
Saturation Present?	Yes	No	Х	Depth (inches):	NA				
(includes capillary fringe)									
Describe Recorded Data (s	stream gua	ge, moni	toring w	vell, aerial photos,	, previous insp	ections), if	available:		
Remarks:									

Hydric Soil Present? Yes	pical for this plogy No plogy No map show X No X No	time of year? significantly naturally pro	Sect Local rel Long: Yes disturbe oblemat	Staion, Townsief (concav	ship, Range: ve, convex, none): NW No (if no, "Normal Circumsta needed, explain in R ons, transects, in	Convex Datur I classification: explain in Ren inces" presenta	narks.) ? Yes autres, et	DP023	
VEGETATION – Use scientific names of Tree Stratum (Plot size: 30) 1.	Absolute % Cover	DominantS pecies?	Indicat Status	or	Dominance Test Number of Domin That Are OBL, FA	nant Species CW, or FAC:	2	(A)	
Sapling/Shrub Stratum (Plot size: 15)	= Total Co	ver		Total Number of Species Across Al Percent of Domin That Are OBL, FA	l Strata: nant Species	100.09	(B) % (A/I	В)
1.		= Total Co	ver		Prevalence Index Total % Cover of:		Multiply b		
Herb Stratum (Plot size: 5) 1. Phalaris arundinacea 2. Typha angustifolia 3	95% 25% 120%	Y Y — = Total Co	FACW OBL wer		OBL species FACW species FACU species UPL species Column Totals: Prevalence Ind	25% 95% 0% 0% 0% 120.0%	x 1 25 x 2 190 x 3 0. x 4 0. x 5 0.	0.0% 0.0% 0% 0%	В)
		= Total Co	ver		Hydrophytic Veg Y 1 - Rapid Test Y 2 - Dominanc Y 3 - Prevalenc Y 4 - Morpholo data in Rema N Problematic I	t for Hydrophyte Test if >50% e Index is ≤ 3.0 gical Adaptatic rks or on a sep Hydrophytic Ve soil and wetlar urbed or proble	tic Vegetations (Provide erate sheet egetation (E)	supportir) xplain)	
Remarks: PEM									

/· I \	1atrix				dox Fea	atures					
inches) Color	: %	<u>,</u>	Col	or:	%	Type:	Loc:		exture:		Remarks:
0-16 10YR 2	/1 100	0%						Cl	lay Loam		
ype: C=Concentration,	D=Depletion,	RM=Re	duced N	Matrix, CS=Co	vered c	or Coated Sa	nd Grains		Location:	PL=Pore I	_ining, M=Matrix
ydric Soil Indicators: (Applicable to	all LRRs	, unless	otherwise r	oted.)			Indicato	rs for Probler	natic Hyd	ric Soils
Histosol (A1) Histic Epipedon (A2 Black Histic (A3) Hydrogen Sulfide (A Stratified Layers (A: 2 cm Muck (A10) Depleted Below Da X Thick Dark Surface Sandy Mucky Mine	.4) 5) rk Surface (A1 (A12)	11)	Sa Sti Lo Lo De	andy Gleyed I indy Redox (S ripped Matri pamy Mucky pamy Gleyed epleted Matri edox Dark Su epleted Dark edox Depress	x (S6) x (S6) Mineral Matrix ix (F3) rface (F Surface	(F1) (F2) 6) e (F7)		Dar Iror Ver Oth Indicator wetland	st Prairie Red k Surface (57) n-Manganese y Shallow Dar er (Explain in rs of hydroph hydrology mu d or problema	Masses (F k Surface Remarks) ytic veget ust be pre	(TF12) ation and
Restrictive Layer (if pres Type: None Depth (inches): N	ent):								oil Present?	Yes _	X No
IYDROLOGY Wetland Hydrology Indi											
Wetland Hydrology Indi Primary Indicators (mini		equired	; check :			(50)			•	-	or more required
Vetland Hydrology Indi rimary Indicators (mini Surface Water (A1)	mum of one r	equired	; check :	_Water-Stair	ned Lea	. ,		· · · · · · · · · · · · · · · · · · ·	Surface S	oil Cracks	(B6)
Netland Hydrology Indi Primary Indicators (mini Surface Water (A1) High Water Table (A	mum of one r	equired	; check	Water-Stair Aquatic Fac	ned Lea una (B13	3)			Surface So Drainage	oil Cracks Pattern (E	(B6) 310)
Vetland Hydrology Indi Primary Indicators (mini Surface Water (A1) High Water Table (A X Saturation (A3)	mum of one r	equired	; check : 	Water-Stair Aquatic Fau True Aquat	ned Lea ina (B13 ic Plant:	3) s (B14)		-	Surface So Drainage Dry-Seaso	oil Cracks Pattern (E on Water	(B6) 310) Table (C2)
Vetland Hydrology Indi Primary Indicators (mini Surface Water (A1) High Water Table (A X Saturation (A3) Water Marks (B1)	mum of one r 2)	equired	; check : 	Water-Stain Aquatic Fau True Aquat Hydrogen S	ned Lea ina (B13 ic Plant iulfide C	3) s (B14) Odor (C1)	oote (C3)		Surface Some Drainage Dry-Seaso Crayfish E	oil Cracks Pattern (E on Water Burrows (C	(B6) 310) Table (C2) C8)
Vetland Hydrology Indi Primary Indicators (mini Surface Water (A1) High Water Table (A X Saturation (A3) Water Marks (B1) Sediment Deposits (mum of one r 2)	equired	; check :	Water-Stain Aquatic Fau True Aquat Hydrogen S Oxidized Rhi	ned Lea una (B13 ic Plants Sulfide C zosphere	3) s (B14) Odor (C1) es on Living Ro	oots (C3)	• • • •	Surface Some Drainage Dry-Seaso Crayfish E	oil Cracks Pattern (E on Water Burrows (C Visible on	(B6) B10) Table (C2) C8) Aerial Imagery (C9)
Wetland Hydrology Indi Primary Indicators (mini Surface Water (A1) High Water Table (A X Saturation (A3) Water Marks (B1) Sediment Deposits (B3)	mum of one r 2) B2)	equired	; check :	Water-Stain Aquatic Fau True Aquat Hydrogen S Oxidized Rhi Presence o	ned Lea una (B13 ic Plant: Sulfide C zosphere f Reduce	3) s (B14) Odor (C1) es on Living Ro ed Iron (C4)		- - - -	Surface Son Drainage Dry-Seaso Crayfish E Saturation Stunted of	oil Cracks Pattern (E on Water Burrows (C Visible on or Stressed	(B6) B10) Table (C2) C8) Aerial Imagery (C9) B Plants (D1)
Wetland Hydrology Indi Primary Indicators (mini Surface Water (A1) High Water Table (A X Saturation (A3) Water Marks (B1) Sediment Deposits (Drift Deposits (B3) Algal Mat or Crust (E	mum of one r 2) B2)	equired	; check :	Water-Stain Aquatic Fau True Aquat Hydrogen S Oxidized Rhi Presence of Recent Iror	ned Lea una (B13 ic Plants sulfide C zosphere f Reduct n Reduct	3) s (B14) Odor (C1) es on Living Ro ed Iron (C4) tion in Tilled		- - - -	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of X Geomorp	oil Cracks Pattern (E on Water Burrows (C Visible on or Stressed hic Positic	(B6) B10) Table (C2) C8) Aerial Imagery (C9) d Plants (D1) on (D2)
Wetland Hydrology Indi Primary Indicators (mini Surface Water (A1) High Water Table (A X Saturation (A3) Water Marks (B1) Sediment Deposits (B3)	mum of one r 2) B2) 84) serial Imagery (B7)	; check :	Water-Stain Aquatic Fau True Aquat Hydrogen S Oxidized Rhi Presence o	ned Lea una (B13 ic Plant: Sulfide C zosphere f Reduct Reduct Surface Vell Data	B) s (B14) Odor (C1) es on Living Ro ed Iron (C4) tion in Tilled (C7) a (D9)		- - - -	Surface Son Drainage Dry-Seaso Crayfish E Saturation Stunted of	oil Cracks Pattern (E on Water Burrows (C Visible on or Stressed hic Positic	(B6) B10) Table (C2) C8) Aerial Imagery (C9) d Plants (D1) on (D2)
Vetland Hydrology Indi Primary Indicators (mini Surface Water (A1) High Water Table (A X Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B1) Iron Deposits (B5) Inundation Visible on A	mum of one r 2) B2) 84) serial Imagery (B7)	; check :	Water-Stain Aquatic Fau True Aquat Hydrogen S Oxidized Rhi Presence o Recent Iror Thin Muck Gauge or W	ned Lea una (B13 ic Plant: Sulfide C zosphere f Reduct Reduct Surface Vell Data	B) s (B14) Odor (C1) es on Living Ro ed Iron (C4) tion in Tilled (C7) a (D9)		- - - -	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of X Geomorp	oil Cracks Pattern (E on Water Burrows (C Visible on or Stressed hic Positic	(B6) B10) Table (C2) C8) Aerial Imagery (C9) d Plants (D1) on (D2)
Vetland Hydrology Indi Primary Indicators (mini Surface Water (A1) High Water Table (A X Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B1) Iron Deposits (B5) Inundation Visible on A Sparsely Vegetated Co	mum of one r 2) B2) 84) serial Imagery (B7) B8)		Water-Stain Aquatic Fau True Aquat Hydrogen S Oxidized Rhi Presence o Recent Iror Thin Muck Gauge or W	ned Lear una (B13 ic Plant: iulfide C zosphere f Reduct Reduct Surface /ell Data ain in R	B) s (B14) Odor (C1) es on Living Ro ed Iron (C4) tion in Tilled (C7) a (D9)		- - - -	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of X Geomorp	oil Cracks Pattern (E on Water Burrows (C Visible on or Stressed hic Positic	(B6) B10) Table (C2) C8) Aerial Imagery (C9) d Plants (D1) on (D2)
Vetland Hydrology Indivirimary Indicators (mini Surface Water (A1) High Water Table (A X Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Inundation Visible on A Sparsely Vegetated Co	mum of one r 2) B2) B4) Berial Imagery (Incave Surface (B7) B8)	X	Water-Stain Aquatic Fau True Aquat Hydrogen S Oxidized Rhi Presence o Recent Iror Thin Muck Gauge or W Other (Expl	ned Lear una (B13 ic Plant: sulfide C zosphere f Reduct Reduct Surface /ell Data ain in R	3) s (B14) Odor (C1) es on Living Ro ed Iron (C4) tion in Tilled (C7) a (D9) emarks)	Soils (C6)	- - - -	Surface Son Drainage Dry-Season Crayfish E Saturation Stunted of X Geomorp X FAC-Neut	oil Cracks Pattern (E on Water Burrows (C Visible on or Stressec hic Positio	(B6) B10) Table (C2) C8) Aerial Imagery (C9) D Plants (D1) D (D2) D5)
Primary Indicators (mini Surface Water (A1) High Water Table (A X Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B1) Iron Deposits (B5) Inundation Visible on A	mum of one r 2) B2) S4) Merial Imagery (Incave Surface (Yes Yes Yes Xes X	B7) B8) No _ No _	XX	Water-Stain Aquatic Fau True Aquat Hydrogen S Oxidized Rhi Presence o Recent Iron Thin Muck Gauge or W Other (Expl	ned Lear una (B13 ic Plant: sulfide C zosphere f Reduct Reduct Surface /ell Data ain in R	B) s (B14) Ddor (C1) es on Living Ro ed Iron (C4) tion in Tilled (C7) a (D9) emarks)	Soils (C6)	- - - -	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of X Geomorp	oil Cracks Pattern (E on Water Burrows (C Visible on or Stressec hic Positio	(B6) B10) Table (C2) C8) Aerial Imagery (C9) d Plants (D1) on (D2)

Project/Site: Tatanka Ridge Wind Project		City/Cour	nty: <u>Deue</u>				npling Da	-	
Applicant/Owner: Buffalo Ridge III, LLC			Coatio		ate: SD	Sai	npling Po	int: DP0	24
Investigator(s): E. Schwartz, P. Swartzinski					nship, Range:	.). Linnan C	,,		
Landform (hillslope, terrace, etc.): depression Slope (%): <5% Lat:	on				ive, convex, none	· · · · · · · · · · · · · · · · · · ·	iope itum: NA	D03	
Soli Map Unit Name:			Long.			NWI classificati		1003	
Are climatic/hydrologic conditions on the site ty	nical for this	time of year?) Ves	Χ		no, explain in I			
Are Vegetation No , Soil No , or Hydro									No
Are Vegetation No , Soil No , or Hydro					needed, explain i				
SUMMARY OF FINDINGS – Attach site							feautre	es, etc.	
Hydrophytic Vegetation Present? Yes	No	X							
Hydric Soil Present? Yes	No	X			pled Area			_	
		X	wit	thin a V	/etland?	Yes	No X		
Remarks:									
Upland									
VEGETATION – Use scientific names of	•	Dania ant	La alta a Assa						
<u>Tree Stratum</u> (Plot size: 30)	Absolute % Cover	DominantS pecies?	Indicator Status	T	Dominance To	est Worksheet	:		
	70 COVC1	pecies:	Status			minant Specie		•	(4)
						FACW, or FAC		0	(A)
1				_	Total Number			2	(B)
		_ = Total Co	ver		Species Acros				(D)
Sapling/Shrub Stratum (Plot size: 15)					FACW, or FAC		0.0%	(A/B)
1				_	Prevalence In	dex Workshee	t:		
		= Total Co	ver		Total % Cover	of:	Mul	tiply by:	
Herb Stratum (Plot size: 5)					OBL species	0%	x 1	0.0%	_
1. Bromus inermis	55%	Υ	FACU		FACW species	0%	x 2	0.0%	_
2. Phleum pratense	25%	Υ	FACU		•		x3		_
3.				_	FAC species	0%		0.0%	_
	80%	= Total Co	vor	_	FACU species	80%	x 4	320.0%	_
Washi Vina Charlina / Dlat sina 15	0070	= 10tal co	VCI		UPL species	0%	x 5	0.0%	_
Woody Vine Stratum (Plot size: 15	_)				Column Totals	80.0%	(A)	320%	(B)
1.					Prevalence	Index = B/A =		4.00	
		= Total Co	ver	_	Hydrophytic \	/egetation Ind	icators:		
	-		VCI		N 1 - Ranid	Test for Hydror	hytic Veg	retation	
					· ·	ance Test if >5	,	ctation	
						ence Index is ≤			
					data in Re	iological Adapt emarks or on a tic Hydrophytic	seperate	sheet)	-
					Indicators of hyd		_		
					present, unless		-		st be
					Hydrophytic Vegetation Present?	Yes	No	x	
Remarks: Upland									

Profile Description: (Desc	ribe to the	depth n	eeded t	o document the i	ndicator or co	nfirm the a	bsence of indicator		
Depth Ma	atrix			Redox F	eatures				
(inches) Color:	9	6	Col	or: %	Type:	Loc:	Texture:	R	emarks:
0-16 10YR 4/2	2 10	0%					Clay Loam		
Type: C=Concentration, D	=Depletion,	, RM=Red	duced N	Matrix, CS=Covere	d or Coated Sa	nd Grains	Location:	PL=Pore Lir	ning, M=Matrix
Hydric Soil Indicators: (Ap							Indicators for Problem	matic Hydri	c Soils
Histosol (A1)				indy Gleyed Matri			Coast Prairie Red	•	
Histic Epipedon (A2)				indy Gleyed Wati indy Redox (S5)	X (34)		Dark Surface (S7	. ,	
Black Histic (A3)				ripped Matrix (S6))		Iron-Manganese		2)
Hydrogen Sulfide (A4	.)			amy Mucky Mine			Very Shallow Da		
Stratified Layers (A5)			Lo	amy Gleyed Matr	ix (F2)		Other (Explain in	Remarks)	
2 cm Muck (A10)			De	epleted Matrix (F3	3)				
Depleted Below Dark	Surface (A	11)		edox Dark Surface					
Thick Dark Surface (A	•			epleted Dark Surfa			Indicators of hydroph	ytic vegetat	ion and
Sandy Mucky Minera	l (S1)		Re	edox Depressions	(F8)		wetland hydrology m disturbed or problem		ent, unless
Restrictive Layer (if prese	nt):								
Type: None							Hydric Soil Present?	Yes	No X
Depth (inches): NA	ı						, 5011 1 1636111:		<u></u>
Remarks: Upland			<u></u>			I.			
HYDROLOGY									
Wetland Hydrology Indica	ators								
Primary Indicators (minim	um of one	required	; check	all that apply)			Secondary In	dicators (2 c	or more required
Surface Water (A1)				Water-Stained L	eaves (B9)		Surface S	oil Cracks (E	36)
High Water Table (A2))			Aquatic Fauna (E	313)		Drainage	Pattern (B1	0)
Saturation (A3)				_True Aquatic Pla	nts (B14)		Dry-Seas	on Water Ta	ıble (C2)
Water Marks (B1)				_Hydrogen Sulfide	٠, ,			Burrows (C8	•
Sediment Deposits (B	2)			Oxidized Rhizosph		oots (C3)			erial Imagery (C9)
Drift Deposits (B3)				_Presence of Red	` '	c :1 (cc)		or Stressed I	` '
Algal Mat or Crust (B4	.)			_Recent Iron Red		Soils (C6)		hic Position	
Iron Deposits (B5) Inundation Visible on Ae	rial Imagery	(R7)	_	Thin Muck Surfa Gauge or Well D	. ,		FAC-Neu	tral Test (D5)
Sparsely Vegetated Cond	٠,			Other (Explain in					
					,				
Field Observations:									
Surface Water Present?	Yes	No	X	Depth (inches):	NA				
Water Table Present?	Yes	No	Х	Depth (inches):	NA	Wetland	d Hydrology Present?	Yes	No X
Saturation Present?	Yes	No	Х	Depth (inches):	NA				
(includes capillary fringe)							21.11		
Describe Recorded Data (s	stream guag	ge, moni	toring w	vell, aerial photos,	, previous insp	ections), if	available:		
Remarks:									

Project/Site: Tatanka Ridge Wind Project		City/Cour	ntv: Dei	uel County	/	Samp	ling Date:	8/1/2	018
Applicant/Owner: Buffalo Ridge III, LLC			-,		ate: SD		ling Point		
Investigator(s): E. Schwartz, P. Swartzinski			Sect		iship, Range:		,,		
Landform (hillslope, terrace, etc.): depression	n	l			ve, convex, none)	: Convex			
Slope (%): <5% Lat:	<u> </u>	_			-, ,,		m: NAD8	33	
Soil Map Unit Name:			- 0 _			WI classification			
Are climatic/hydrologic conditions on the site ty	pical for this	time of year?	? Yes	Х		io, explain in Rei	-		
Are Vegetation No , Soil No , or Hydro			_					Х	No
Are Vegetation No , Soil No , or Hydro					needed, explain in		-		
SUMMARY OF FINDINGS – Attach site							autres,	etc.	
Hydrophytic Vegetation Present? Yes	X No					· ·			
Hydric Soil Present? Yes	X No		I.	s the Sam	pled Area				
Wetland Hydrology Present? Yes	X No		V	within a W	/etland?	Yes X N	o	_	
	<u> </u>								
Remarks: PEM									
VEGETATION – Use scientific names of	plants								
	Absolute	DominantS	Indicat	tor	Dominance Tes	st Worksheet:			
<u>Tree Stratum</u> (Plot size: <u>30</u>)	% Cover	pecies?	Status		Number of Don	ninant Species			
					That Are OBL, F	•		2	(A)
1.					Total Number of				. ,
		= Total Co	ver		Species Across			2	(B)
Capling/Chrush Ctratum / Dlat size. 15	`		• • •		Percent of Dom				
Sapling/Shrub Stratum (Plot size: 15)				That Are OBL, F	•	100	0.0%	(A/B)
1					Prevalence Ind	ex Worksheet:			
		= Total Co	ver		Total % Cover of		Multip	lv bv:	
Herb Stratum (Plot size: 5)		_							_
	400/	V	FACV	A./	OBL species	0%	x 1	0.0%	
1. Spartina pectinata	40%	Y	FACV		FACW species	60%	x 2	120.0%	_
2. Poa pratensis	25%	Y	FAC		FAC species	25%	x 3	75.0%	
3. Echinochloa crus-galli	15%	N	FACV		FACU species	0%	x 4	0.0%	
4. Agrostis stolonifera	5%	N	FACV	<u>v</u>	UPL species	0%	x 5	0.0%	_
5					Column Totals:		-		
	85%	= Total Co	ver				(A)	195%	(B)
Woody Vine Stratum (Plot size: 15)				Prevalence I	ndex = B/A =	2.	29	_
					Hydrophytic Ve	egetation Indica	tors:		
1					N 1 - Rapid Te	est for Hydrophy	tic Veget	ation	
		= Total Co	ver		Y 2 - Domina	nce Test if >50%			
						nce Index is ≤ 3.0			
						logical Adaptati		ide supp	orting
					data in Ren	narks or on a sep	erate she	eet)	-
						c Hydrophytic V	-		-
					Indicators of hydr		-	logy mus	t be
					present, unless di	sturbed or prob	ematic		
					Disabase be at				
					Hydrophytic Vegetation				
					Vegetation Present?	YesX	No		
					i resent:				
Remarks: PEM									

Profile Description: (De	scribe to the	depth need	ded to docu	ment the ii	ndicator or co	nfirm the a	bsence of indicator	
·	1atrix			Redox F	eatures			_
(inches) Color	: 9	6	Color:	%	Type:	Loc:	Texture:	Remarks:
0-16 10YR 2	/1 10	0%					Clay Loam	
Type: C=Concentration,	D=Depletion,	RM=Reduc	ced Matrix,	CS=Covered	d or Coated Sa	nd Grains	Location:	PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (Applicable to	all LRRs, ui	nless other	wise noted.	.)		Indicators for Problem	natic Hydric Soils
Histosol (A1) Histic Epipedon (A2 Black Histic (A3) Hydrogen Sulfide (A Stratified Layers (A 2 cm Muck (A10) Depleted Below Da X Thick Dark Surface Sandy Mucky Mine) A4) 5) rk Surface (A (A12)	_	Sandy Gl Sandy Re Stripped Loamy M Loamy G Depleted Redox De	eyed Matrix	x (S4) ral (F1) ix (F2)) (F6) ice (F7)		Coast Prairie Redo Dark Surface (S7) Iron-Manganese I Very Shallow Darl Other (Explain in Indicators of hydrophy wetland hydrology mu	oc (A16) Masses (F12) k Surface (TF12) Remarks) rtic vegetation and
			_	·			disturbed or problema	
Restrictive Layer (if presented in Type: None Depth (inches): None Remarks:	sent):						Hydric Soil Present?	Yes <u>X</u> No
HYDROLOGY Wetland Hydrology Ind Primary Indicators (mini Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (II Iron Deposits (B5) X Inundation Visible on A Sparsely Vegetated Co	mum of one 2) B2) 34) Aerial Imagery	(B7)	Wate Aqua True Hydro Oxidiz Prese Recer Thin I	r-Stained Le tic Fauna (B Aquatic Plar ogen Sulfide ed Rhizosphe nce of Redu	ot13) Ints (B14) Ints		Surface So Drainage I Dry-Seaso Crayfish B Saturation	icators (2 or more required) bil Cracks (B6) Pattern (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) r Stressed Plants (D1) nic Position (D2) ral Test (D5)
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringed Describe Recorded Data	Yes Yes)	No X No X No X	C Depth	n (inches): n (inches): n (inches): rial photos,	NA NA NA previous insp		I Hydrology Present?	Yes <u>X</u> No
Remarks:		, 	3 - 1,10	, 3223)		-,, -,,		

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC		City/Cour	nty: <u>Deue</u>		/ ate: SD		npling Da	-	
Investigator(s): E. Schwartz, P. Swartzinski			Section		iship, Range:	5an		III. <u>DI 0.</u>	20
Landform (hillslope, terrace, etc.): depression	n .				ve, convex, none)): Linear SI	one , ,		
Slope (%): <5% Lat:	/II				ve, convex, none,	-	tum: NA	D83	
Soil Map Unit Name:			Long.			WI classification		1003	
Are climatic/hydrologic conditions on the site ty	nical for this	time of year?	? Yes	Х		no, explain in F			
Are Vegetation No , Soil No , or Hydro									No
Are Vegetation No , Soil No , or Hydro					needed, explain ir				
SUMMARY OF FINDINGS – Attach site							feautre	es, etc.	
Hydrophytic Vegetation Present? Yes _	No	X							
Hydric Soil Present? Yes	No	X			pled Area	W	NI - 3/		
Wetland Hydrology Present? Yes		X	wi	thin a W	/etland?	Yes	NO X	·	
Remarks:									
Upland									
Opiana									
VEGETATION – Use scientific names of	•								
Tree Stratum (Plot size: 30)	Absolute	DominantS		r	Dominance Te	st Worksheet:			
Tree stratum (Flot size. 30)	% Cover	pecies?	Status		Number of Dor	minant Species	5		
					That Are OBL, I	FACW, or FAC:		0	(A)
1					Total Number	of Dominant			
		= Total Co	ver		Species Across	All Strata:		2	(B)
Sapling/Shrub Stratum (Plot size: 15)				Percent of Don That Are OBL, I	•		0.0%	(A/B)
1.					Prevalence Ind	lex Worksheet	·•		
		= Total Co	ver		Total % Cover of			iply by:	
Herb Stratum (Plot size: 5)					OBL species	0%	x 1	0.0%	
1. Bromus inermis	55%	Υ	FACU		·				
Phleum pratense	35%	Y	FACU		FACW species	0%	x 2	0.0%	_
			17100		FAC species	0%	x 3	0.0%	_
3					FACU species	90%	x 4	360.0%	
	90%	_ = Total Co	ver		UPL species	0%	x 5	0.0%	
Woody Vine Stratum (Plot size: 15)				Column Totals:	90.0%	(A)	360%	(B)
					Prevalence I	ndex = B/A =		4.00	_ ` `
1							-		
		= Total Co	ver		Hydrophytic V	egetation Indi	cators:		
					N 1 - Rapid T	est for Hydrop	hytic Veg	etation	
					N 2 - Domina	nce Test if >50)%		
					N 3 - Prevale				
					N 4 - Morpho data in Rer N Problemat	marks or on a s	eperate:	sheet)	-
					Indicators of hydr		_		
					present, unless d				
					Hydrophytic Vegetation	Yes	No	X	
					Present?				
Demonstrate Holes !									
Remarks: Upland									

(inches) Color: 0-16 10YR 3/2 Type: C=Concentration, D=De Hydric Soil Indicators: (Applie	% 100%				atures						
Fype: C=Concentration, D=De	100%	Co	olor:	%	Type:	Loc:	Text	ture:	R	emarks:	!
Hydric Soil Indicators: (Appli	100/0						Clay	Loam			
	epletion, RM	1=Reduced	Matrix, CS=	Covered o	or Coated Sar	nd Grains		Location:	PL=Pore Lir	ning, M=I	Matrix
	cable to all	LRRs. unles	ss otherwise	noted.)			Indicators f	or Probler	natic Hydri	c Soils	
Histosol (A1)			Sandy Gleye		S/1)			Prairie Red	•		
Histic Epipedon (A2)			Sandy Gleye Sandy Redox		54)			urface (S7)			
Black Histic (A3)			Stripped Ma					, ,	Masses (F1	2)	
Hydrogen Sulfide (A4)			oamy Muck		l (F1)			_	k Surface (1		
Stratified Layers (A5)			oamy Gleye					(Explain in		,	
2 cm Muck (A10)			Depleted Ma					•	•		
Depleted Below Dark Su	rface (A11)		Redox Dark S		6)						
Thick Dark Surface (A12) Sandy Mucky Mineral (S)		Depleted Da Redox Depre	rk Surface	e (F7)		Indicators of wetland hydisturbed o	drology mι	ist be prese		SS
Restrictive Layer (if present):	:										
Type: None							المارية المرادا	Duoces +3	Var	Al -	v
Depth (inches): NA							Hydric Soil	rresent?	Yes	No	X
Remarks: Upland											
Wetland Hydrology Indicator		uired: check	k all that an	alv)			Sec	condary Inc	licators (2 c	or more r	required
Wetland Hydrology Indicator Primary Indicators (minimum		uired; check			ves (B9)		Sec		licators (2 c		equirec
Wetland Hydrology Indicator Primary Indicators (minimumSurface Water (A1)		uired; check	Water-St	ained Lea			Sec 	_Surface So	oil Cracks (E	36)	equired
Wetland Hydrology Indicator Primary Indicators (minimum Surface Water (A1) High Water Table (A2)		uired; check	Water-St Aquatic F	ained Lea auna (B1	3)		Sec —	Surface So Drainage	oil Cracks (E Pattern (B1	36) 0)	equired
Wetland Hydrology Indicator Primary Indicators (minimumSurface Water (A1)		uired; check — —	Water-St	ained Lea auna (B13 atic Plant	3) s (B14)		Sec 	Surface So Drainage Dry-Seaso	oil Cracks (E	36) 0) ible (C2)	equirec
Wetland Hydrology Indicator Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3)		uired; check — — —	Water-St Aquatic F True Aqu Hydroger	ained Lea auna (B13 atic Plant n Sulfide C	3) s (B14)	ots (C3)	Sec 	Surface So Drainage Dry-Seaso Crayfish B	oil Cracks (E Pattern (B1 on Water Ta	36) 0) able (C2))	
Wetland Hydrology Indicator Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)		uired; check	Water-St. Aquatic F True Aqu Hydroger Oxidized R	ained Lea auna (B13 atic Plant n Sulfide C hizosphere	3) s (B14) Odor (C1)	ots (C3)	Sec	Surface Son Drainage Dry-Seaso Crayfish E Saturation	oil Cracks (E Pattern (B1 on Water Ta Jurrows (C8	86) 0) able (C2)) erial Image	ery (C9)
Wetland Hydrology Indicator Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)		uired; check	Water-St. Aquatic F True Aqu Hydroger Oxidized R Presence Recent Ir	ained Lea auna (B13 atic Plant of Sulfide C hizosphere of Reduct	3) s (B14) Odor (C1) es on Living Ro ed Iron (C4) tion in Tilled		Sec	Surface Son Drainage Dry-Season Crayfish E Saturation Stunted o	oil Cracks (E Pattern (B1 on Water Ta Surrows (C8 Visible on Ae	36) 0) able (C2)) erial Image Plants (Di	ery (C9)
Wetland Hydrology Indicator Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	of one requ	- - - -	Water-St Aquatic F True Aqu Hydroger Oxidized R Presence Recent In	ained Lea auna (B1: atic Plant of Sulfide C hizosphere of Reduct on Reduct k Surface	B) s (B14) Odor (C1) es on Living Ro ed Iron (C4) tion in Tilled (C7)		Sec.	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted of Geomorp	oil Cracks (E Pattern (B1 on Water Ta Jurrows (C8 Visible on Ae r Stressed I	36) 0) able (C2)) erial Image Plants (D2)	ery (C9)
Wetland Hydrology Indicator Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial	n of one requ	- - - -	Water-St Aquatic F True Aqu Hydroger Oxidized R Presence Recent In Thin Muc	ained Lea auna (B13 atic Plant o Sulfide C hizosphere of Reduc on Reduc k Surface Well Data	B) s (B14) Odor (C1) es on Living Ro ed Iron (C4) tion in Tilled (C7) a (D9)		Sec.	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted of Geomorp	oil Cracks (E Pattern (B1 on Water Ta surrows (C8 Visible on Ae r Stressed I hic Position	36) 0) able (C2)) erial Image Plants (D2)	ery (C9)
Wetland Hydrology Indicator Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	n of one requ	- - - -	Water-St Aquatic F True Aqu Hydroger Oxidized R Presence Recent In	ained Lea auna (B13 atic Plant o Sulfide C hizosphere of Reduc on Reduc k Surface Well Data	B) s (B14) Odor (C1) es on Living Ro ed Iron (C4) tion in Tilled (C7) a (D9)		Sec.	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted of Geomorp	oil Cracks (E Pattern (B1 on Water Ta surrows (C8 Visible on Ae r Stressed I hic Position	36) 0) able (C2)) erial Image Plants (D2)	ery (C9)
Wetland Hydrology Indicator Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Sparsely Vegetated Concave	n of one requ	- - - -	Water-St Aquatic F True Aqu Hydroger Oxidized R Presence Recent In Thin Muc	ained Lea auna (B13 atic Plant o Sulfide C hizosphere of Reduc on Reduc k Surface Well Data	B) s (B14) Odor (C1) es on Living Ro ed Iron (C4) tion in Tilled (C7) a (D9)		Sec	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted of Geomorp	oil Cracks (E Pattern (B1 on Water Ta surrows (C8 Visible on Ae r Stressed I hic Position	36) 0) able (C2)) erial Image Plants (D2)	ery (C9)
Wetland Hydrology Indicator Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Sparsely Vegetated Concave	n of one requ		Water-St Aquatic F True Aqu Hydroger Oxidized R Presence Recent In Thin Muc Gauge or Other (Ex	ained Lea auna (B1: atic Plant Sulfide C hizosphere of Reduc on Reduc k Surface Well Dat: plain in R	B) s (B14) Odor (C1) es on Living Ro ed Iron (C4) tion in Tilled (C7) a (D9)		Sec.	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted of Geomorp	oil Cracks (E Pattern (B1 on Water Ta surrows (C8 Visible on Ae r Stressed I hic Position	36) 0) able (C2)) erial Image Plants (D2)	ery (C9)
Wetland Hydrology Indicator Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Sparsely Vegetated Concave	Imagery (B7) Surface (B8)	No X	Water-St Aquatic F True Aqu Hydroger Oxidized R Presence Recent In Thin Muc Gauge or Other (Ex	ained Lea auna (B1: atic Plant Sulfide C hizosphere of Reduct on Reduct k Surface Well Data plain in R	3) s (B14) Odor (C1) es on Living Ro ed Iron (C4) tion in Tilled (C7) a (D9) emarks)	Soils (C6)		Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp FAC-Neut	oil Cracks (B Pattern (B1 on Water Ta Journows (C8 Visible on Ae r Stressed I hic Position ral Test (D5	36) 0) able (C2)) erial Image Plants (D2) (D2)	ery (C9) 1)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Sparsely Vegetated Concave Field Observations: Surface Water Present?	Imagery (B7) Surface (B8)	No X No X	Water-St Aquatic F True Aqu Hydroger Oxidized R Presence Recent In Thin Muc Gauge or Other (Ex	ained Lea auna (B1: atic Plant Sulfide C hizosphere of Reduc on Reduct k Surface Well Data plain in R	B) s (B14) Odor (C1) es on Living Ro ed Iron (C4) tion in Tilled (C7) a (D9) emarks)	Soils (C6)	Sec	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp FAC-Neut	oil Cracks (E Pattern (B1 on Water Ta surrows (C8 Visible on Ae r Stressed I hic Position	36) 0) able (C2)) erial Image Plants (D2) (D2)	ery (C9)

Hydric Soil Present? Yes	rpical for this blogy No blogy No map show X No X No	time of year? significantly naturally pro ing samplii	Section Sectin Section Section Section Section Section Section Section Section	Staten, Towns on, Towns of (concav X N d? Are '	o(if no 'Normal Circumst eeded, explain in I ns, transects, led Area	Convex Datu VI classification D, explain in Re ances" present	marks.) ? Yes eautres,	83 X , etc.	
VEGETATION – Use scientific names of Tree Stratum (Plot size: 30)	plants Absolute % Cover	DominantS pecies?	Indicato Status	or	Dominance Test				
Sapling/Shrub Stratum (Plot size: 15))	= Total Co	ver		That Are OBL, FA Total Number of Species Across A Percent of Domi	ACW, or FAC: f Dominant All Strata: fnant Species		2	(A) (B)
1		= Total Co	ver		Prevalence Inde	x Worksheet:	Multip		(A/B)
Herb Stratum (Plot size: 5) 1. Typha angustifolia 2. Phalaris arundinacea 3.	85% 35%	Y Y	OBL FACW	_	OBL species FACW species FAC species FACU species	85% 35% 0% 0%	x1 x2 x3 x4	85.0% 70.0% 0.0%	_ _ _ _
Woody Vine Stratum (Plot size: 15	120%	= Total Co	ver		UPL species Column Totals: Prevalence In	0% 120.0%	x 5	0.0% 155% .29	(B)
		= Total Co	ver		N Problematic ndicators of hydric resent, unless dis Hydrophytic Vegetation	st for Hydrophy ice Test if >50% ce Index is ≤ 3. ogical Adaptati arks or on a se Hydrophytic V c soil and wetla turbed or prob	vtic Veget 5 0 ons (Prov perate sh egetation ind hydro lematic	ride suppo eet) (Explain logy mus)
Remarks: PEM					Present?	Yes X	_No		

Profile Description: (Describe to the dep	th needed to docur	ment the indicator or co	nfirm the a	bsence of indicator	
Depth Matrix		Redox Features			
(inches) Color: %	Color:	% Type:	Loc:	Texture:	Remarks:
0-16 10YR 2/1 100%				Clay Loam	
Type: C=Concentration, D=Depletion, RN	I=Reduced Matrix, (S=Covered or Coated Sa	nd Grains	Location:	PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (Applicable to all				Indicators for Problen	
Histosol (A1)		eyed Matrix (S4)		Coast Prairie Red	•
Histic Epipedon (A2)	Sandy Re	•		Dark Surface (S7)	` '
Black Histic (A3)		Matrix (S6)		Iron-Manganese	
Hydrogen Sulfide (A4)		ucky Mineral (F1)		Very Shallow Dar	
Stratified Layers (A5)		eyed Matrix (F2)		Other (Explain in	
2 cm Muck (A10)	Depleted	Matrix (F3)			
Depleted Below Dark Surface (A11)	Redox Da	rk Surface (F6)			
X Thick Dark Surface (A12)	Depleted	Dark Surface (F7)		Indicators of hydrophy	tic vegetation and
Sandy Mucky Mineral (S1)	Redox De	pressions (F8)		wetland hydrology mu disturbed or problema	
Restrictive Layer (if present):					
Type: None				Hydric Soil Present?	Yes X No
Depth (inches): NA				Tryanic Jon Flesent!	163 <u>A</u> NU
Remarks: PEM			ļ		
HYDROLOGY					
Wetland Hydrology Indicators					
Primary Indicators (minimum of one requ	uired; check all that	apply)		Secondary Ind	licators (2 or more required)
X Surface Water (A1)	Water	-Stained Leaves (B9)		Surface So	oil Cracks (B6)
X High Water Table (A2)		ic Fauna (B13)		_	Pattern (B10)
X Saturation (A3)		quatic Plants (B14)			n Water Table (C2)
Water Marks (B1)		gen Sulfide Odor (C1)	. (22)		urrows (C8)
Sediment Deposits (B2)		ed Rhizospheres on Living R			Visible on Aerial Imagery (C9)
Drift Deposits (B3)		nce of Reduced Iron (C4)			r Stressed Plants (D1)
Algal Mat or Crust (B4) Iron Deposits (B5)		t Iron Reduction in Tilled Juck Surface (C7)	3011S (C6)	X FAC-Neuti	nic Position (D2)
Inundation Visible on Aerial Imagery (B7)		or Well Data (D9)		X FAC-Neuti	rai rest (D3)
Sparsely Vegetated Concave Surface (B8)	_	(Explain in Remarks)			
	_				
Field Observations:					
Surface Water Present? Yes X	No Depth	(inches): 3			
Water Table Present? Yes X	No Depth	(inches): 0	Wetland	d Hydrology Present?	Yes X No
Saturation Present? Yes X	No Depth	(inches): 0			
(includes capillary fringe) Describe Recorded Data (stream guage, 1)	monitoring well ser	ial photos provious inch	ections) if	availahle:	
	monitoring well, aer	iai pilotos, previous insp	ections), if a	avallable.	
Remarks: PEM					

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC Investigator(s): E. Schwartz, P. Swartzinski		City/Cour		S1	y tate: <u>SD</u> nship, Range:		pling Dat pling Poi		
Landform (hillslope, terrace, etc.): depression Slope (%): <5% Lat:	on	_			ave, convex, none)	Dat	um: NA	D83	
Soil Map Unit Name: Are climatic/hydrologic conditions on the site ty Are Vegetation No , Soil No , or Hydro Are Vegetation No , Soil No , or Hydro SUMMARY OF FINDINGS – Attach site	ology No ology No	significantly naturally pro	disturl oblema	bed? Ar atic? (if	No(if ne "Normal Circums" needed, explain in	Remarks.)	emarks.) it? Yes	X	No
Г		X	iig po	int locat	ions, transcets,	important	cautic	3, c.c.	
				Is the San	npled Area				
_		X		within a V	Vetland?	Yes	No X		
Remarks: Upland	110								
VEGETATION – Use scientific names of	plants								
Tree Stratum (Plot size: 30)	Absolute % Cover	DominantS pecies?	Indica Status		Dominance Tes Number of Don That Are OBL, F	minant Species FACW, or FAC:		0	(A)
1.		- Total Co			Total Number of Species Across			2	(B)
Sapling/Shrub Stratum (Plot size: 15)	_ = Total Co	ver		Percent of Dom That Are OBL, F	ninant Species			(A/B)
1					Prevalence Ind	ex Worksheet:			
		= Total Co	ver		Total % Cover of			iply by:	
Herb Stratum (Plot size: 5)					OBL species	0%	x 1	0.0%	_
1. Bromus inermis	70%	Υ	FAC	:U	FACW species	0%	- ^ - x 2	0.0%	_
2. Phleum pratense	25%	Υ	FAC	:U	·				_
3. Poa pratensis	15%	N	FAC	С	FAC species	15%	_ x 3 _	45.0%	_
4.					FACU species	95%	_ x 4 _	380.0%	_
	110%	= Total Co	ver		UPL species	0%	_ x 5 _	0.0%	
Woody Vine Stratum (Plot size: 15)				Column Totals:		(A)	425%	(B)
	= *				Prevalence I	ndex = B/A =		3.86	
1.					Hydrophytic Ve	egetation Indic	ators:		
		= Total Co	ver		N 1 - Rapid Te	est for Hydroph	vtic Veg	etation	
		_			N 2 - Domina	, ,	, ,		
					N 3 - Prevaler				
					N 4 - Morpho	ological Adaptat narks or on a se c Hydrophytic v ic soil and wetl	cions (Pro eperate s Vegetation	heet) on (Explain ology mus	n)
					Hydrophytic Vegetation Present?	Yes	_No	x	
Remarks: Upland					I				

Profile Description: (Desc	ribe to the	depth n	eeded to	o document the i	indicator or co	nfirm the a	bsence of indicator	
Depth Ma	itrix			Redox F	eatures			
(inches) Color:	9	6	Colo	or: %	Type:	Loc:	Texture:	Remarks:
0-16 10YR 3/2	10	0%					Clay Loam	
Type: C=Concentration, D	=Depletion,	, RM=Red	duced M	atrix, CS=Covere	d or Coated Sa	nd Grains	Location:	PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (Ap							Indicators for Probler	
Histosol (A1)	pileable to	- an - an -		ndy Gleyed Matri			Coast Prairie Red	•
Histic Epipedon (A2)				ndy Gleyed Matri ndy Redox (S5)	IX (34)		Dark Surface (S7)	` '
Black Histic (A3)				ipped Matrix (S6)		Iron-Manganese	
Hydrogen Sulfide (A4)			amy Mucky Mine			Very Shallow Dar	
Stratified Layers (A5)	•			amy Gleyed Matr			Other (Explain in	
2 cm Muck (A10)			De	pleted Matrix (F3	3)			
Depleted Below Dark	Surface (A	11)	Re	dox Dark Surface	(F6)			
X Thick Dark Surface (A	12)		De	pleted Dark Surfa	ace (F7)		Indicators of hydroph	ytic vegetation and
Sandy Mucky Minera	l (S1)		Re	dox Depressions	(F8)		wetland hydrology mudisturbed or problema	
Restrictive Layer (if prese	nt):							
Type: None							Hydric Soil Present?	Yes X No
Depth (inches): NA	·						, and John Federiti	.33 _ // 140
Remarks:						ļ		
HYDROLOGY								
Wetland Hydrology Indica	ators							
Primary Indicators (minim	um of one	required	; check a	all that apply)			Secondary Inc	dicators (2 or more required)
Surface Water (A1)				Water-Stained L	` '		Surface S	oil Cracks (B6)
High Water Table (A2)				Aquatic Fauna (E			_	Pattern (B10)
Saturation (A3)				True Aquatic Pla				on Water Table (C2)
Water Marks (B1)	• •			Hydrogen Sulfide	, ,	-+- (C2)		Burrows (C8)
Sediment Deposits (B3)	2)			Oxidized Rhizosph		ots (C3)		Visible on Aerial Imagery (C9)
Drift Deposits (B3) Algal Mat or Crust (B4	١		-	Presence of Red Recent Iron Red	` '	Soils (C6)		or Stressed Plants (D1) hic Position (D2)
Iron Deposits (B5)	,		-	Thin Muck Surfa		30113 (CO)		ral Test (D5)
Inundation Visible on Ae	rial Imagery	(B7)	-	Gauge or Well D	. ,			. ui 1630 (D3)
Sparsely Vegetated Conc	ave Surface	(B8)		Other (Explain in				
Field Observations:								
Surface Water Present?	·	No _		Depth (inches):	NA			
Water Table Present?	·	No _		Depth (inches):	NA	Wetland	d Hydrology Present?	Yes No X
Saturation Present? (includes capillary fringe)	Yes	No _	X	Depth (inches):	NA			
Describe Recorded Data (s	tream gua	ge, moni	toring w	ell, aerial photos	, previous insp	ections), if a	available:	
Remarks:					<u> </u>			

Wetland Hydrology Present? Yes	pical for this blogy No blogy No map show	time of year? significantly naturally pro ing sampli	Section Sectin Section Section Section Section Section Section Section Section	X ned? Are tic? (if r	ate: SD uship, Range: ve, convex, none) No (if n "Normal Circums needed, explain in ons, transects,	Sampli Convex Datun VI classification: o, explain in Remtances" present? Remarks.)	n: NAD83 narks.) Yes X autres, etc.	P/2018 P031 No
Remarks: PEM VEGETATION – Use scientific names of Tree Stratum (Plot size: 30)	plants Absolute % Cover	DominantS pecies?	Indica Status		Dominance Tes			
1. Sapling/Shrub Stratum (Plot size: 15)	= Total Co	 ver		That Are OBL, F Total Number of Species Across Percent of Dom That Are OBL, F	ACW, or FAC: of Dominant All Strata: ninant Species	2 2 100.0%	(A) (B) (A/B)
1. Herb Stratum (Plot size: 5) 1. Echinochloa crus-galli 2. Carex aquatilis 3. Hordeum jubatum 4.	35% 35% 10%	= Total Cov	FACV OBL FAC	<u>-</u>	Prevalence Ind Total % Cover of OBL species FACW species FAC species FACU species UPL species		Multiply by: x 1	6
Woody Vine Stratum (Plot size: 15	.)	= Total Cov			Y 1 - Rapid Te Y 2 - Domina Y 3 - Prevaler Y 4 - Morpho data in Ren	egetation Indicatest for Hydrophytonce Test if >50% nee Index is ≤ 3.0 logical Adaptationarks or on a sepic Hydrophytic Veic soil and wetlar	tic Vegetation ons (Provide superate sheet) egetation (Expland nd hydrology m	pporting
Remarks: PEM					Hydrophytic Vegetation Present?	Yes X	No	

Profile Description: (Describe to the dept	n needed to document the indicator or confirm the	absence of indicator
Depth Matrix	Redox Features	
(inches) Color: %	Color: % Type: Loc	Texture: Remarks:
0-16 10YR 2/1 100%		Clay Loam
Type: C=Concentration. D=Depletion. RM=	Reduced Matrix, CS=Covered or Coated Sand Grains	Location: PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (Applicable to all LI		Indicators for Problematic Hydric Soils
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) Depleted Below Dark Surface (A11) X Thick Dark Surface (A12) Sandy Mucky Mineral (S1)	Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8)	Coast Prairie Redoc (A16) Dark Surface (S7) Iron-Manganese Masses (F12) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Restrictive Layer (if present): Type: None Depth (inches): NA Remarks: PEM		Hydric Soil Present? Yes X No
HYDROLOGY Wetland Hydrology Indicators Primary Indicators (minimum of one requi X Surface Water (A1) X High Water Table (A2) Saturation (A3) X Water Marks (B1)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1)	Secondary Indicators (2 or more required)Surface Soil Cracks (B6)Drainage Pattern (B10)Dry-Season Water Table (C2)Crayfish Burrows (C8)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)	Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks)	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) X Geomorphic Position (D2) X FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes X N Water Table Present? Yes X N Saturation Present? Yes X N (includes capillary fringe)	o Depth (inches): 0 Wetlan	nd Hydrology Present? Yes X No
Remarks:	ornitoring wen, derial photos, previous inspections), i	т ачанамс.

Project/Site: Tatanka Ridge Wind Project		City/Cour	nty: De	euel Cour	nty	Sar	npling Da	te: <u>8/2/</u> 2	2018
Applicant/Owner: Buffalo Ridge III, LLC					State: SD	San	npling Po	nt: DP0	32
Investigator(s): E. Schwartz, P. Swartzinski			Sec	ction, Tov	vnship, Range:		,,		
Landform (hillslope, terrace, etc.): depression	on		Local re	elief (con	cave, convex, none)	: Linear S	оре		
Slope (%): <5% Lat:			Long:			Da	tum: NA	.D83	
Soil Map Unit Name:						WI classification	on:		
Are climatic/hydrologic conditions on the site ty						no, explain in F			
Are Vegetation No , Soil No , or Hydro							nt? Yes	X	No
Are Vegetation No , Soil No , or Hydr	ology No	naturally pr	oblema	atic? (i	f needed, explain in	Remarks.)			
SUMMARY OF FINDINGS – Attach site			ng po	int loca	tions, transects	, important	feautre	es, etc.	
Hydrophytic Vegetation Present? Yes _	No.	X							
Hydric Soil Present? Yes	X No				mpled Area	Voc	No V		
Wetland Hydrology Present? Yes	No	X		within a	Wetland?	Yes	INU A	·	
Remarks:									
UPLAND									
VEGETATION – Use scientific names of	plants				100_				
Tree Stratum (Plot size: 30)	Absolute	DominantS			Dominance Te	st Worksheet	:		
Tree stratum (Flot size. 30)	% Cover	pecies?	Status	S	Number of Dor	minant Species	S		
					That Are OBL, I	ACW, or FAC:		0	(A)
1					Total Number	of Dominant			
		= Total Co	ver		Species Across	All Strata:		1	(B)
Sapling/Shrub Stratum (Plot size: 15)				Percent of Don That Are OBL, I			0.0%	(A/B)
1.					Duovoloneo Ind	lav Markshaa	<u> </u>		
		= Total Co	ver		Prevalence Ind			برما برامین	
Herb Stratum (Plot size: 5)	-				Total % Cover of			tiply by:	
	C00/	V	110		OBL species	0%	x1	0.0%	_
1. Glycine max	60%	Y	UP	L	FACW species	0%	x 2	0.0%	
2					FAC species	0%	x 3	0.0%	
	60%	= Total Co	ver		FACU species	0%	x 4	0.0%	
Woody Vine Stratum (Plot size: 15)				UPL species	60%	x 5	300.0%	
	_				Column Totals:	-	(A)	300%	(B)
1.							('') -		(b)
	-	= Total Co			Prevalence I	ndex = B/A =		5.00	<u> </u>
		= Total Co	ver		Hydrophytic V	egetation Indi	cators:		
					N 1 - Rapid T	est for Hydrop	hytic Veg	etation	
					N 2 - Domina	nce Test if >50	0%		
					N 3 - Prevale				
					N 4 - Morpho			ovido supr	orting
						narks or on a	seperate :	sheet)	_
					Indicators of hydi		_		
					present, unless d				or oc
					Hydrophytic Vegetation				
					Present?	Yes	No	X	
Remarks: UPLAND									

	ccaca to acc	ument the indicator or co		osence of indicator
Depth Matrix		Redox Features		
(inches) Color: %	Color:	% Type:	Loc:	Texture: Remarks:
0-16 10YR 2/1 100%				Clay Loam
Type: C=Concentration, D=Depletion, RM=R	Reduced Matrix	, CS=Covered or Coated Sa	nd Grains	Location: PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (Applicable to all LRI	Rs. unless othe	rwise noted.)		Indicators for Problematic Hydric Soils
Histosol (A1)		ileyed Matrix (S4)		Coast Prairie Redoc (A16)
Histic Epipedon (A2)		edox (S5)		Dark Surface (S7)
Black Histic (A3)		d Matrix (S6)		Iron-Manganese Masses (F12)
Hydrogen Sulfide (A4)		Mucky Mineral (F1)		Very Shallow Dark Surface (TF12)
Stratified Layers (A5)	Loamy (Gleyed Matrix (F2)		Other (Explain in Remarks)
2 cm Muck (A10)		d Matrix (F3)		
Depleted Below Dark Surface (A11)		Park Surface (F6)		
X Thick Dark Surface (A12) Sandy Mucky Mineral (S1)		d Dark Surface (F7) Depressions (F8)		Indicators of hydrophytic vegetation and wetland hydrology must be present, unless
				disturbed or problematic.
Restrictive Layer (if present):				
Type: None				Hydric Soil Present? Yes X No
Depth (inches): NA Remarks: Upland				
INDBOLOCA				
Wetland Hydrology Indicators	ed: check all tha	nt apply)		Secondary Indicators (2 or more required
Wetland Hydrology Indicators Primary Indicators (minimum of one require		nt apply) er-Stained Leaves (B9)		Secondary Indicators (2 or more required Surface Soil Cracks (B6)
Wetland Hydrology Indicators	Wat			·
Wetland Hydrology Indicators Primary Indicators (minimum of one requireSurface Water (A1)	Wat Aqua	er-Stained Leaves (B9)		Surface Soil Cracks (B6)
Wetland Hydrology Indicators Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2)	Wat Aqu: True Hyd:	er-Stained Leaves (B9) atic Fauna (B13) Aquatic Plants (B14) ogen Sulfide Odor (C1)		Surface Soil Cracks (B6) Drainage Pattern (B10)Dry-Season Water Table (C2)Crayfish Burrows (C8)
Wetland Hydrology Indicators Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Wat Aqui True Hydi Oxidi	er-Stained Leaves (B9) atic Fauna (B13) Aquatic Plants (B14) rogen Sulfide Odor (C1) zed Rhizospheres on Living Ro	oots (C3)	Surface Soil Cracks (B6) Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Wat Aqua True Hydi Oxidi Pres	er-Stained Leaves (B9) atic Fauna (B13) Aquatic Plants (B14) rogen Sulfide Odor (C1) zed Rhizospheres on Living Ro ence of Reduced Iron (C4)		Surface Soil Cracks (B6) Drainage Pattern (B10)Dry-Season Water Table (C2)Crayfish Burrows (C8)Saturation Visible on Aerial Imagery (C9)Stunted or Stressed Plants (D1)
Wetland Hydrology Indicators Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Wat Aqua True Hydi Oxidi Pres	er-Stained Leaves (B9) atic Fauna (B13) Aquatic Plants (B14) rogen Sulfide Odor (C1) zed Rhizospheres on Living Ro ence of Reduced Iron (C4) ant Iron Reduction in Tilled		Surface Soil Cracks (B6) Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Wetland Hydrology Indicators Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Wat AquaTrueHydiOxidiPresReceThin	er-Stained Leaves (B9) atic Fauna (B13) Aquatic Plants (B14) rogen Sulfide Odor (C1) zed Rhizospheres on Living Ro ence of Reduced Iron (C4) ant Iron Reduction in Tilled Muck Surface (C7)		Surface Soil Cracks (B6) Drainage Pattern (B10)Dry-Season Water Table (C2)Crayfish Burrows (C8)Saturation Visible on Aerial Imagery (C9)Stunted or Stressed Plants (D1)
Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Wat AquaTrueHydiOxidiPresReceThinGau	er-Stained Leaves (B9) atic Fauna (B13) Aquatic Plants (B14) rogen Sulfide Odor (C1) zed Rhizospheres on Living Ro ence of Reduced Iron (C4) ant Iron Reduction in Tilled		Surface Soil Cracks (B6) Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Wetland Hydrology Indicators Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)	Wat AquaTrueHydiOxidiPresReceThinGau	er-Stained Leaves (B9) atic Fauna (B13) Aquatic Plants (B14) rogen Sulfide Odor (C1) zed Rhizospheres on Living Ro ence of Reduced Iron (C4) ent Iron Reduction in Tilled Muck Surface (C7) ge or Well Data (D9)		Surface Soil Cracks (B6) Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Wetland Hydrology Indicators Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)	Wat AquaTrueHydiOxidiPresReceThinGau	er-Stained Leaves (B9) atic Fauna (B13) Aquatic Plants (B14) rogen Sulfide Odor (C1) zed Rhizospheres on Living Ro ence of Reduced Iron (C4) ent Iron Reduction in Tilled Muck Surface (C7) ge or Well Data (D9)		Surface Soil Cracks (B6) Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Wetland Hydrology Indicators Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations:	— Wat Aqua True Hydi Oxidi Pres Rece Thin Gaua Othe	er-Stained Leaves (B9) atic Fauna (B13) Aquatic Plants (B14) rogen Sulfide Odor (C1) zed Rhizospheres on Living Ro ence of Reduced Iron (C4) ent Iron Reduction in Tilled Muck Surface (C7) ge or Well Data (D9)		Surface Soil Cracks (B6) Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Wetland Hydrology Indicators Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No	Matural Aquation Aqua	er-Stained Leaves (B9) atic Fauna (B13) Aquatic Plants (B14) rogen Sulfide Odor (C1) zed Rhizospheres on Living Ro ence of Reduced Iron (C4) ant Iron Reduction in Tilled Muck Surface (C7) ge or Well Data (D9) ar (Explain in Remarks)	Soils (C6)	Surface Soil Cracks (B6) Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Wetland Hydrology Indicators Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Saturation Present? Yes No Saturat	WatAquaTrueHydiOxidiPresThinOthe	er-Stained Leaves (B9) atic Fauna (B13) Aquatic Plants (B14) rogen Sulfide Odor (C1) zed Rhizospheres on Living Roence of Reduced Iron (C4) ent Iron Reduction in Tilled Muck Surface (C7) ge or Well Data (D9) er (Explain in Remarks)	Soils (C6)	Surface Soil Cracks (B6) Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
Wetland Hydrology Indicators Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Saturation Present? Yes No Saturation Present? Yes No Saturation Present? Yes No Saturation Present? Yes No Significance of the property of t	Wat Aqua True Hydro Oxidi Pres Rece Thin Gaut Othe Oxidi Common Com	er-Stained Leaves (B9) atic Fauna (B13) Aquatic Plants (B14) rogen Sulfide Odor (C1) zed Rhizospheres on Living Roence of Reduced Iron (C4) ant Iron Reduction in Tilled Muck Surface (C7) ge or Well Data (D9) ar (Explain in Remarks) th (inches): NA th (inches): NA th (inches): NA	Soils (C6) Wetland	Surface Soil Cracks (B6)Drainage Pattern (B10)Dry-Season Water Table (C2)Crayfish Burrows (C8)Saturation Visible on Aerial Imagery (C9)Stunted or Stressed Plants (D1)Geomorphic Position (D2)FAC-Neutral Test (D5) Hydrology Present? YesNoX
Wetland Hydrology Indicators Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Saturation Present? Yes No Saturat	Wat Aqua True Hydro Oxidi Pres Rece Thin Gaut Othe Oxidi Common Com	er-Stained Leaves (B9) atic Fauna (B13) Aquatic Plants (B14) rogen Sulfide Odor (C1) zed Rhizospheres on Living Roence of Reduced Iron (C4) ant Iron Reduction in Tilled Muck Surface (C7) ge or Well Data (D9) ar (Explain in Remarks) th (inches): NA th (inches): NA th (inches): NA	Soils (C6) Wetland	Surface Soil Cracks (B6)Drainage Pattern (B10)Dry-Season Water Table (C2)Crayfish Burrows (C8)Saturation Visible on Aerial Imagery (C9)Stunted or Stressed Plants (D1)Geomorphic Position (D2)FAC-Neutral Test (D5) Hydrology Present? YesNoX

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC Investigator(s): E. Schwartz, P. Swartzinski Landform (hillslope, terrace, etc.): depression Slope (%): <5% Lat: Soil Map Unit Name: Are climatic/hydrologic conditions on the site ty Are Vegetation No , Soil No , or Hydro Are Vegetation No , Soil No , or Hydro SUMMARY OF FINDINGS — Attach site II Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes Wetland Hydrology Present? Yes Remarks:	pical for this ology No ology No map showi	time of year? significantly naturally pro ing samplii	Section Sectio	Si on, Tow ef (conce X ed? Ar ic? (if at locat	No (if re "Normal Circums needed, explain in	Sampl : Convex Datur WI classification: no, explain in Rer stances" present	m: NAD83 marks.) Yes x	
VEGETATION – Use scientific names of Tree Stratum (Plot size: 30)	plants Absolute % Cover	DominantS pecies?	Indicato Status	or	Dominance Te			
1. Sapling/Shrub Stratum (Plot size: 15)	= Total Cov	ver		That Are OBL, I Total Number of Species Across Percent of Don That Are OBL, I	FACW, or FAC: of Dominant All Strata: ninant Species	2 2 100.0%	(A) (B) (C) (A/B)
1. Herb Stratum (Plot size: 5) 1. Eleocharis palustris	55%	= Total Cov	ver OBL		Prevalence Ind Total % Cover of OBL species FACW species	lex Worksheet: of: 105% 15%	Multiply by x 1 105 x 2 30.	.0%
Schoenoplectus tabernaemontani Persicaria pensylvanica 4.	50% 15% 120%	N = Total Cov	OBL FACW ver	<u>, </u>	FAC species FACU species UPL species	0% 0% 0%	x 3 0.0 x 4 0.0 x 5 0.0	9% 9%
Woody Vine Stratum (Plot size: 1t 1.		_ = Total Cov	ver		Hydrophytic Vo Y 1 - Rapid To Y 2 - Domina Y 3 - Prevale Y 4 - Morpho data in Rer	egetation Indicar est for Hydrophy nce Test if >50% nce Index is ≤ 3.0 ological Adaptationarks or on a sepic Hydrophytic Veric soil and wetla	tic Vegetatio ons (Provide serate sheet) egetation (Ex	n supporting plain)
Remarks: PEM					Hydrophytic Vegetation Present?	Yes X		

/· I \	latrix				dox Fe	atures					
inches) Color		<u>) </u>	Col	or:	%	Type:	Loc:		exture:		Remarks:
0-16 10YR 2	/1 100)%						С	lay Loam		
ype: C=Concentration,	D=Depletion,	RM=Red	duced N	Лatrix, CS=C	overed	or Coated Sa	nd Grains		Location:	PL=Pore	Lining, M=Matrix
ydric Soil Indicators: (A	Applicable to	all LRRs	, unless	otherwise	noted.)			Indicato	rs for Proble	matic Hyd	ric Soils
Histosol (A1) Histic Epipedon (A2 Black Histic (A3) Hydrogen Sulfide (A Stratified Layers (A1 2 cm Muck (A10) Depleted Below Da X Thick Dark Surface Sandy Mucky Mine	.4) 5) rk Surface (A1 (A12)	.1)	Sa St Lo Lo De Re	andy Gleyed andy Redox ripped Mat bamy Mucky bamy Gleyed epleted Mat edox Dark Si epleted Dar edox Depres	(S5) rix (S6) r Minera l Matrix rix (F3) urface (l	al (F1) (F2) F6) e (F7)		Dar Iror Ver Oth Indicator wetland	ist Prairie Rec ik Surface (S7 n-Manganese y Shallow Dai ier (Explain in rs of hydroph hydrology mi d or problem) Masses (I k Surface Remarks ytic veget ust be pre	(TF12) ation and
Restrictive Layer (if pres Type: None Depth (inches): <u>N</u>	ent):								oil Present?	Yes _	X No
Wetland Hydrology Indi											
Wetland Hydrology Indi Primary Indicators (mini		equired	; check							-	or more required
Vetland Hydrology Indi rimary Indicators (mini Surface Water (A1)	mum of one r	equired	; check	Water-Sta	ined Lea	. ,		:	Surface S	oil Cracks	(B6)
Wetland Hydrology Indi Primary Indicators (mini Surface Water (A1) High Water Table (A	mum of one r	equired	; check	_Water-Sta Aquatic Fa	ined Lea una (B1	.3)			Surface S Drainage	oil Cracks Pattern (I	(B6) 310)
Vetland Hydrology Indi Primary Indicators (mini Surface Water (A1) High Water Table (A X Saturation (A3)	mum of one r	equired	; check 	Water-Sta Aquatic Fa True Aqua	ined Lea una (B1 tic Plan	.3) ts (B14)			Surface S Drainage Dry-Seaso	oil Cracks Pattern (I on Water	(B6) 310) Table (C2)
Vetland Hydrology Indi Primary Indicators (mini Surface Water (A1) High Water Table (A X Saturation (A3) Water Marks (B1)	mum of one r 2)	equired	; check 	Water-Sta Aquatic Fa True Aqua Hydrogen	ined Lea una (B1 tic Plan Sulfide	.3) ts (B14) Odor (C1)	oote (C3)	:	Surface S Drainage Dry-Seaso Crayfish E	oil Cracks Pattern (I on Water Burrows (G	(B6) 310) Table (C2) C8)
Vetland Hydrology Indi Primary Indicators (mini Surface Water (A1) High Water Table (A X Saturation (A3) Water Marks (B1) Sediment Deposits (mum of one r 2)	equired	; check 	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Rh	ined Lea una (B1 tic Plan Sulfide izospher	.3) ts (B14) Odor (C1) res on Living Ro	oots (C3)	- - -	Surface S Drainage Dry-Seaso Crayfish E	oil Cracks Pattern (I on Water Burrows (O Visible on	(B6) 310) Table (C2) C8) Aerial Imagery (C9)
Wetland Hydrology Indi Primary Indicators (mini Surface Water (A1) High Water Table (A X Saturation (A3) Water Marks (B1) Sediment Deposits (Drift Deposits (B3)	mum of one r 2) B2)	equired	; check 	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence	ined Lea una (B1 tic Plan Sulfide izospher of Reduc	.3) ts (B14) Odor (C1) res on Living Ro ced Iron (C4)		:	Surface S Drainage Dry-Sease Crayfish E Saturation Stunted c	oil Cracks Pattern (I on Water Burrows (Visible on or Stresse	(B6) B10) Table (C2) C8) Aerial Imagery (C9) d Plants (D1)
Wetland Hydrology Indi Primary Indicators (mini Surface Water (A1) High Water Table (A X Saturation (A3) Water Marks (B1) Sediment Deposits (Drift Deposits (B3) Algal Mat or Crust (E	mum of one r 2) B2)	equired	; check	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence o	ined Lea una (B1 tic Plan Sulfide izospher of Reduc n Reduc	.3) ts (B14) Odor (C1) res on Living Ro ced Iron (C4) ction in Tilled		- - - -	Surface S Drainage Dry-Sease Crayfish E Saturation Stunted c X Geomorp	oil Cracks Pattern (I on Water Burrows (I Visible on or Stressed hic Positic	(B6) 310) Table (C2) C8) Aerial Imagery (C9) d Plants (D1) on (D2)
Wetland Hydrology Indi Primary Indicators (mini Surface Water (A1) High Water Table (A X Saturation (A3) Water Marks (B1) Sediment Deposits (Drift Deposits (B3)	mum of one r 2) B2) 44) erial Imagery (B7)	; check	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence	ined Lea una (B1 tic Plan Sulfide izospher of Reduc n Reduc Surface Well Dat	ts (B14) Odor (C1) res on Living Roced Iron (C4) ction in Tilled e (C7) ta (D9)		- - - -	Surface S Drainage Dry-Sease Crayfish E Saturation Stunted c	oil Cracks Pattern (I on Water Burrows (I Visible on or Stressed hic Positic	(B6) 310) Table (C2) C8) Aerial Imagery (C9) d Plants (D1) on (D2)
Wetland Hydrology Indi Primary Indicators (mini Surface Water (A1) High Water Table (A X Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B1) Iron Deposits (B5) Inundation Visible on A	mum of one r 2) B2) 44) erial Imagery (B7)	; check	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence o Recent Iro Thin Muck	ined Lea una (B1 tic Plan Sulfide izospher of Reduc n Reduc Surface Well Dat	ts (B14) Odor (C1) res on Living Roced Iron (C4) ction in Tilled e (C7) ta (D9)		- - - -	Surface S Drainage Dry-Sease Crayfish E Saturation Stunted c X Geomorp	oil Cracks Pattern (I on Water Burrows (I Visible on or Stressed hic Positic	(B6) 310) Table (C2) C8) Aerial Imagery (C9) d Plants (D1) on (D2)
Wetland Hydrology Indi Primary Indicators (mini Surface Water (A1) High Water Table (A X Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Inundation Visible on A Sparsely Vegetated Co	mum of one r 2) B2) 44) erial Imagery (B7) B8)		Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence o Recent Iro Thin Muck	ined Lea una (B1 tic Plan Sulfide izospher of Reduc n Reduc Surface Well Dat slain in I	ts (B14) Odor (C1) res on Living Roced Iron (C4) ction in Tilled e (C7) ta (D9)		- - - -	Surface S Drainage Dry-Sease Crayfish E Saturation Stunted c X Geomorp	oil Cracks Pattern (I on Water Burrows (I Visible on or Stressed hic Positic	(B6) 310) Table (C2) C8) Aerial Imagery (C9) d Plants (D1) on (D2)
Vetland Hydrology Indi Primary Indicators (mini Surface Water (A1) High Water Table (A X Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Inundation Visible on A Sparsely Vegetated Co	mum of one r 2) B2) B4) Berial Imagery (Incave Surface (B7) B8)	X	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence o Recent Iro Thin Muck Gauge or V	ined Lea una (B1 tic Plan Sulfide izospher of Reduc n Reduc Surface Well Dat olain in I	ts (B14) Odor (C1) res on Living Roced Iron (C4) ction in Tilled e (C7) ta (D9) Remarks)	Soils (C6)	-	Surface S Drainage Dry-Seaso Crayfish E Saturation Stunted o X Geomorp X FAC-Neut	oil Cracks Pattern (I on Water Burrows (I Visible on or Stressee thic Positio	(B6) 310) Table (C2) C8) Aerial Imagery (C9) d Plants (D1) on (D2) D5)
High Water Table (A X Saturation (A3) Water Marks (B1) Sediment Deposits (Drift Deposits (B3) Algal Mat or Crust (B1) Iron Deposits (B5) Inundation Visible on A	mum of one r 2) B2) 64) Berial Imagery (ncave Surface (Yes Yes Yes Yes Yes	B7) B8) No _ No _	XX	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence o Recent Iro Thin Muck Gauge or V Other (Exp	ined Lea una (B1 tic Plan Sulfide izospher of Reduc Neduc Surface Well Dat ilain in F	ts (B14) Odor (C1) res on Living Ro ced Iron (C4) ction in Tilled e (C7) ta (D9) Remarks)	Soils (C6)	-	Surface S Drainage Dry-Sease Crayfish E Saturation Stunted c X Geomorp	oil Cracks Pattern (I on Water Burrows (I Visible on or Stressee thic Positio	(B6) 310) Table (C2) C8) Aerial Imagery (C9) d Plants (D1) on (D2)

Project/Site: Tatanka Ridge Wind Project		City/Cour	nty: De	euel Cou	nty	San	npling Da	te: 8/2/2	2018
Applicant/Owner: Buffalo Ridge III, LLC					State: SD	San	npling Poi	nt: DP0	34
Investigator(s): E. Schwartz, P. Swartzinski			Sec	ction, To	wnship, Range:		,,		
Landform (hillslope, terrace, etc.): depressi	on		Local re	elief (con	cave, convex, none): Linear S	ope		
Slope (%): <5% Lat:			Long:			Da	itum: NA	.D83	
Soil Map Unit Name:		·				IWI classification	on:		
Are climatic/hydrologic conditions on the site ty	pical for this	time of year?	? Yes	X	No(if	no, explain in F	≀emarks.)		
Are Vegetation No , Soil No , or Hydr	ology No	significantly	disturl	bed? A	re "Normal Circum	stances" prese	nt? Yes	X	No
Are Vegetation No , Soil No , or Hydr	ology No	naturally pr	oblema	atic? (if needed, explain i	n Remarks.)			
SUMMARY OF FINDINGS – Attach site	map show	ing sampli	ng po	int loca	tions, transects	, important	feautre	s, etc.	
Hydrophytic Vegetation Present? Yes	No	X							
Hydric Soil Present? Yes	X No				mpled Area				
Wetland Hydrology Present? Yes	No	X		within a	Wetland?	Yes	NO X	·	
Remarks:			,						
UPLAND									
VEGETATION – Use scientific names of	•	D t + C	to alta a						
<u>Tree Stratum</u> (Plot size: 30)	Absolute % Cover	DominantS pecies?	Status		Dominance Te	st Worksheet	!		
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	p = 0.000			Number of Do	•		0	(4)
1					That Are OBL,			0	(A)
1	· <u></u>				Total Number			1	(B)
		= Total Co	ver		Species Across				(5)
Sapling/Shrub Stratum (Plot size: 15)				Percent of Dor That Are OBL,	•		0.0%	(A/B)
1					Prevalence Inc	dex Workshee	 t:		
		= Total Co	ver		Total % Cover			iply by:	
Herb Stratum (Plot size: 5)					OBL species	0%	x 1	0.0%	
1. Medicago sativa	85%	Υ	FAC	CU	•	-	===		_
_					FACW species	0%	x 2	0.0%	_
2		-			FAC species	0%	x 3	0.0%	_
	85%	= Total Co	ver		FACU species	85%	x 4	340.0%	_
Woody Vine Stratum (Plot size: 15	_)				UPL species	0%	x 5	0.0%	
					Column Totals	: 85.0%	(A)	340%	(B)
1					Prevalence	Index = B/A =		4.00	
		= Total Co	ver		Hydrophytic V		icators:		<u> </u>
					, , ,				
						est for Hydrop	, ,	cialion	
						ance Test if >50			
						ence Index is ≤			
						ological Adapta marks or on a : ic Hydrophytic	seperate :	sheet)	_
					Indicators of hyd		_		
					present, unless d				or bc
					Hydrophytic Vegetation Present?	Yes	No	х	
Remarks: UPLAND					[

Profile Description: (Desc	ribe to the	depth n	eeded t	o document the i	indicator or co	nfirm the a	bsence of indicator	
Depth Ma	atrix			Redox F	eatures			
(inches) Color:	9	6	Col	or: %	Type:	Loc:	Texture:	Remarks:
0-16 10YR 2/	10	0%					Clay Loam	
Type: C=Concentration, D	=Depletion	, RM=Red	duced N	Лatrix, CS=Covere	d or Coated Sa	nd Grains	Location:	PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (A							Indicators for Probler	- -
Histosol (A1)	piicabie to	an Litits		andy Gleyed Matri			Coast Prairie Red	•
Histic Epipedon (A2)				andy Redox (S5)	IX (34)		Dark Surface (S7)	· ,
Black Histic (A3)				ripped Matrix (S6)		Iron-Manganese	
Hydrogen Sulfide (A4	!)			amy Mucky Mine			Very Shallow Dar	
Stratified Layers (A5)				oamy Gleyed Matr			Other (Explain in	
2 cm Muck (A10)				epleted Matrix (F3				·
Depleted Below Dark	Surface (A	11)	Re	edox Dark Surface	(F6)			
X Thick Dark Surface (A	\12)		De	epleted Dark Surfa	ace (F7)		Indicators of hydroph	ytic vegetation and
Sandy Mucky Minera	l (S1)		Re	edox Depressions	(F8)		wetland hydrology mudisturbed or problema	ust be present, unless
Restrictive Layer (if prese	nt):							
Type: None							Hydric Soil Present?	Yes X No
Depth (inches): NA	.		_				,	· · · · · · · · · · · · · · · · · · ·
Remarks:						1		
HYDROLOGY								
Wetland Hydrology Indic	ators							
Primary Indicators (minim	um of one	required	; check	all that apply)			Secondary Inc	dicators (2 or more required)
Surface Water (A1)				Water-Stained L	eaves (B9)		Surface Se	oil Cracks (B6)
High Water Table (A2)			Aquatic Fauna (313)		Drainage	Pattern (B10)
Saturation (A3)				_True Aquatic Pla				on Water Table (C2)
Water Marks (B1)				_Hydrogen Sulfid				Burrows (C8)
Sediment Deposits (B	2)		-	Oxidized Rhizosph	=	oots (C3)		Visible on Aerial Imagery (C9)
Drift Deposits (B3)	1)			Presence of Red	, ,	Soils (CC)		or Stressed Plants (D1)
Algal Mat or Crust (B4 Iron Deposits (B5)	1		-	Recent Iron Red Thin Muck Surfa		Solis (Co)		hic Position (D2) ral Test (D5)
Inundation Visible on Ae	rial Imagery	(B7)		Gauge or Well D	` '		FAC-Neut	iai iest (D3)
Sparsely Vegetated Cond	σ,			Other (Explain in				
				_	·			
Field Observations:								
Surface Water Present?	Yes	No	X	Depth (inches):	NA			
Water Table Present?	·	No		Depth (inches):	NA	Wetland	d Hydrology Present?	YesNoX
Saturation Present?	Yes	No _	Х	Depth (inches):	NA			
(includes capillary fringe)	otroam a	go mor!	torina ::	uall parial phates	provious inse	octions\ :f	available:	
Describe Recorded Data (toring w	veii, aeriai photos	, previous insp	ections), if a	avaiiabie:	
Remarks: Upland alfalfa	ı field no hy	/drology						

Hydric Soil Present? Yes	rpical for this blogy No blogy No map show X No X No	time of year? significantly naturally pro	Sect Local re Long: _ ? Yes _ disturb oblemating poi	Stion, Townlief (conca	ate: SD nship, Range: ave, convex, none): NW No (if note "Normal Circumstineeded, explain in Financeded, ex	Convex Datu /I classification o, explain in Rei ances" present Remarks.)	marks.) i? Yes eautres, (3 x etc.	35
Remarks: PEM WITH SCATTED WILLOWS									
VEGETATION – Use scientific names of Tree Stratum (Plot size: 30) 1.	Absolute % Cover	DominantS pecies?	Indicat Status		Dominance Test Number of Dom That Are OBL, FA	inant Species ACW, or FAC:	2	<u>!</u>	(A)
Sapling/Shrub Stratum (Plot size: 15)	= Total Co	ver		Total Number of Species Across A Percent of Domi That Are OBL, FA	Ill Strata: nant Species	100.		(B) (A/B)
1		= Total Co	ver		Prevalence Inde		Multiply	y by:	
Herb Stratum (Plot size: 5) 1. Echinochloa crus-galli 2. Phalaris arundinacea 3.	90% 45%	Y Y	FACV		OBL species FACW species FAC species FACU species	0% 135% 0% 0%	x 2 2 x 3	0.0% 270.0% 0.0% 0.0%	
Woody Vine Stratum (Plot size: 14 1.	135%	_ = Total Co	ver		UPL species Column Totals: Prevalence Inc	0% 135.0% dex = B/A =		0.0% 270% 00	(B)
		_ = Total Co	ver		Y 1 - Rapid Tes Y 2 - Dominan Y 3 - Prevalence Y 4 - Morpholo data in Rema N Problematic Indicators of hydric present, unless dis	st for Hydrophy ce Test if >50% ce Index is ≤ 3.0 ogical Adaptati arks or on a sep Hydrophytic V c soil and wetla	ytic Vegeta 6 0 ons (Provic perate shee egetation (and hydrolo	de suppo et) (Explain))
Remarks: PEM WITH SCATTERED COTTONWO	OOD AND WIL	LOWS			Hydrophytic Vegetation Present?	Yes X	_No	_	

Profile Description: (Des	cribe to the	depth ne	eded to do	cument the i	ndicator or co	nfirm the a	bsence of indicator	
' <u></u>	atrix			Redox F	eatures			
(inches) Color:	9	6	Color:	%	Type:	Loc:	Texture:	Remarks:
0-16 10YR 2/	1 10	0%					Clay Loam	
Type: C=Concentration, [)=Depletion,	RM=Redu	uced Matrix	x, CS=Covered	d or Coated Sa	nd Grains	Location: I	PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (A	pplicable to	all LRRs,	unless oth	erwise noted	l .)		Indicators for Problem	natic Hydric Soils
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A Stratified Layers (A5) 2 cm Muck (A10) Depleted Below Dar X Thick Dark Surface (4)) k Surface (A A12)	- - -	Sandy Sandy Strippe Loamy Loamy Deplet Redox Deplet	Gleyed Matri Redox (S5) ed Matrix (S6) Mucky Mine Gleyed Matr ed Matrix (F3 Dark Surface ed Dark Surfa	(x (S4)) ral (F1) rix (F2) 3) (F6) ace (F7)		Coast Prairie Redo Dark Surface (S7) Iron-Manganese I Very Shallow Dark Other (Explain in	oc (A16) Masses (F12) k Surface (TF12) Remarks) tic vegetation and
Sandy Mucky Miner	aı (S1)	_	Redox	Depressions	(۴8)		wetland hydrology mu disturbed or problema	
Restrictive Layer (if pres Type: None Depth (inches): N Remarks: PEM			_				Hydric Soil Present?	Yes <u>X</u> No
HYDROLOGY Wetland Hydrology India Primary Indicators (minir Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B3 Iron Deposits (B5) X Inundation Visible on A Sparsely Vegetated Cor	num of one (2) 32) 4) erial Imagery	(B7)	Wa Aqu Tru Hyo Oxio Pre Rec Thin	ter-Stained Lo uatic Fauna (E e Aquatic Pla drogen Sulfide dized Rhizospho sence of Red	a13) nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9)		Surface So Drainage F Dry-Seaso Crayfish B Saturation S Stunted or	icators (2 or more required) fil Cracks (B6) Pattern (B10) In Water Table (C2) Furrows (C8) Visible on Aerial Imagery (C9) Ir Stressed Plants (D1) Fic Position (D2) Fal Test (D5)
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data	Yes	NoNoNo	X Dep	oth (inches): oth (inches): oth (inches):	NA NA NA previous insp		l Hydrology Present?	Yes <u>X</u> No
Remarks:	San Carri Budg	5-,		.c.iai piiotos,	, , , , , , , , , , , , , , , , , , , ,	23001137, 11		

Hydric Soil Present? Yes	pical for this ology No ology No	time of year? significantly naturally pro ing sampli	Sec Local re Long: ? Yes / disturl oblema	x X peed? A Artic? (i	State: SD wnship, Range: cave, convex, none): NW No (if no are "Normal Circumst if needed, explain in I	Linear S Linear S /I classificati o, explain in ances" preso	ilope atum: NA on: Remarks.) ent? Yes	X es, etc.	36
Opiana soybean neid									
VEGETATION – Use scientific names of	nlants								
Tree Stratum (Plot size: 30)	Absolute % Cover	DominantS pecies?	Indica Status		Dominance Test Number of Dom That Are OBL, FA Total Number of	inant Specie ACW, or FAC	!S	0	(A)
		= Total Co	ver		Species Across A			1	(B)
Sapling/Shrub Stratum (Plot size: 15)	_			Percent of Domi That Are OBL, FA	•		0.0%	(A/B)
1					Prevalence Inde	x Workshee	et:		
		= Total Co	ver		Total % Cover of	÷:	Mult	tiply by:	
Herb Stratum (Plot size: 5)					OBL species	0%	x 1	0.0%	
1. Glycine max	85%	Υ	UP	L	FACW species	0%	x 2	0.0%	
2					FAC species	0%	x 3	0.0%	
	85%	= Total Co	ver		FACU species	0%	x 4	0.0%	
Woody Vine Stratum (Plot size: 15	_)				UPL species	85%	x 5	425.0%	
					Column Totals:	85.0%	(A)	425%	(B)
1					Prevalence Inc	dex = B/A =		5.00	
		= Total Co	ver		Hydrophytic Ve	getation Ind	icators:		
					N 1 - Rapid Tes	_		etation	
					N 2 - Dominan		_	Ctation	
					N 3 - Prevalence				
					N 4 - Morpholodata in Rem N Problematic Indicators of hydric present, unless dis	arks or on a Hydrophytic soil and we	seperate : c Vegetati etland hyd	sheet) on (Explain rology mus	n)
					Hydrophytic Vegetation Present?	Yes	No	<u>x</u>	
Remarks: Upland									

Profile Description: (Descr										
Depth Ma				Redox F				0.	r	Remarks:
(inches) Color:			Color:	%	Type:	Loc:	Texture		Г	Remarks.
0-16 10YR 2/1	100%	6					Clay Loai	m		
ype: C=Concentration, D=	Depletion, R	M=Redu	ced Matrix,	CS=Covered	d or Coated Sai	nd Grains	Lo	cation: I	PL=Pore Li	ining, M=Matrix
ydric Soil Indicators: (Ap	plicable to a	II LRRs, u	ınless other	wise noted	.)		Indicators for I	Problem	atic Hydr	ic Soils
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) Depleted Below Dark X Thick Dark Surface (A2)	Surface (A11	 	Sandy G Sandy R Stripped Loamy N Loamy C Deplete Redox D	leyed Matri: edox (S5) I Matrix (S6) Mucky Minei Gleyed Matri d Matrix (F3 Park Surface d Dark Surfa	x (S4) ral (F1) x (F2)) (F6)		Coast Prai Dark Surfa Iron-Mang Very Shall Other (Exp	ace (S7) ganese I low Dark plain in I	Masses (F k Surface (Remarks)	(TF12)
Sandy Mucky Mineral	(S1)	_	Redox D	epressions (F8)		wetland hydro disturbed or pr	logy mu	st be pres	
Restrictive Layer (if preser Type: None Depth (inches): NA	nt):		-				Hydric Soil Pre	esent?	Yes	X No
			-			Ţ				
Remarks:										
YDROLOGY Vetland Hydrology Indica										
YDROLOGY Vetland Hydrology Indica rimary Indicators (minimu		quired; c			paves (RQ)					or more required
/DROLOGY /etland Hydrology Indica rimary Indicators (minimu _Surface Water (A1)		quired; c	Wate	er-Stained Le			Su	rface So	il Cracks (B6)
/DROLOGY /etland Hydrology Indica rimary Indicators (minimu		quired; c	Wate		13)		Su Dr	rface So ainage F		B6) 10)
YDROLOGY Vetland Hydrology Indica rimary Indicators (minimu Surface Water (A1) High Water Table (A2)		quired; c	Wate Aqua True Hydr	er-Stained Le atic Fauna (B Aquatic Pla ogen Sulfide	13) nts (B14) e Odor (C1)		Su Dr Dr Cr;	rface So ainage F y-Seaso ayfish B	il Cracks (Pattern (B n Water T urrows (C	B6) 10) able (C2) 8)
YDROLOGY Vetland Hydrology Indica rimary Indicators (minimu Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2	um of one re	quired; c	Wate Aqua True Hydr Oxidi	er-Stained Le atic Fauna (B Aquatic Pla ogen Sulfide zed Rhizosphe	13) nts (B14) e Odor (C1) eres on Living Ro	oots (C3)	Su Dr Dr Cr; Sat	rface So ainage F y-Seaso ayfish Bo turation V	il Cracks (Pattern (B n Water T urrows (Ca Visible on A	B6) 10) able (C2) 8) verial Imagery (C9)
YDROLOGY Vetland Hydrology Indica rimary Indicators (minimumonications) — Surface Water (A1) — High Water Table (A2) — Saturation (A3) — Water Marks (B1) — Sediment Deposits (B2) — Drift Deposits (B3)	um of one red	quired; c	Mate Aqua True Hydr Oxidia	er-Stained Le atic Fauna (B Aquatic Plan ogen Sulfide zed Rhizosphe ence of Redu	13) hts (B14) Hodor (C1) heres on Living Rouced Iron (C4)		Su Dr Cr: Sat Str	orface So rainage F ry-Seaso ayfish Bo turation N unted or	oil Cracks (Pattern (B In Water T In Water (Co Visible on A Stressed	B6) 10) able (C2) 8) verial Imagery (C9) Plants (D1)
YDROLOGY Vetland Hydrology Indica rimary Indicators (minimu Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	um of one red	quired; c	Wate Aqua True Hydr Oxidia Prese	er-Stained Le atic Fauna (B Aquatic Plan ogen Sulfide zed Rhizosphe ence of Redu nt Iron Redu	13) hts (B14) c Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled		Su Dr Cra Sta Stu Ge	rface So rainage F ry-Seaso ayfish Br turation V unted or eomorph	il Cracks (Pattern (B n Water T urrows (Ci Visible on A T Stressed nic Positio	B6) 10) able (C2) 8) herial Imagery (C9) Plants (D1) n (D2)
YDROLOGY Vetland Hydrology Indica rimary Indicators (minimumonications) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	um of one red) ial Imagery (B.	7)	Aqua Aqua True Hydr Oxidi: Presse Rece Thin Gauge	er-Stained Le atic Fauna (B Aquatic Plan ogen Sulfide zed Rhizosphe ence of Redu	nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9)		Su Dr Cra Sta Stu Ge	rface So rainage F ry-Seaso ayfish Br turation V unted or eomorph	oil Cracks (Pattern (B In Water T In Water (Co Visible on A Stressed	B6) 10) able (C2) 8) herial Imagery (C9) Plants (D1) n (D2)
YDROLOGY Vetland Hydrology Indica rimary Indicators (minimu Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Sparsely Vegetated Conca	um of one red) ial Imagery (B.	7)	Aqua Aqua True Hydr Oxidi: Presse Rece Thin Gauge	er-Stained Le Aquatic Plan ogen Sulfide zed Rhizosphe ence of Redu nt Iron Redu Muck Surfac ge or Well Da	nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9)		Su Dr Cra Sta Stu Ge	rface So rainage F ry-Seaso ayfish Br turation V unted or eomorph	il Cracks (Pattern (B n Water T urrows (Ci Visible on A T Stressed nic Positio	B6) 10) able (C2) 8) herial Imagery (C9) Plants (D1) n (D2)
YDROLOGY Vetland Hydrology Indicarimary Indicators (minimus Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Sparsely Vegetated Concardicated Co) ial Imagery (B:	7)	Aqua Aqua True Hydr Oxidi: Prese Rece Thin Gaug	er-Stained Le atic Fauna (B Aquatic Plan ogen Sulfide zed Rhizosphe ence of Redu nt Iron Redu Muck Surfac ge or Well Da er (Explain in	nts (B14) c Odor (C1) cres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9) Remarks)		Su Dr Cra Sta Stu Ge	rface So rainage F ry-Seaso ayfish Br turation V unted or eomorph	il Cracks (Pattern (B n Water T urrows (Ci Visible on A T Stressed nic Positio	B6) 10) able (C2) 8) herial Imagery (C9) Plants (D1) n (D2)
YDROLOGY Vetland Hydrology Indicarimary Indicators (minimus Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Sparsely Vegetated Concarded	om of one red ial Imagery (B: ave Surface (B&	7) 3) _ No:	Aqua Aqua True Hydr Oxidi: Press Rece Thin Gaug Othe	er-Stained Leatic Fauna (B Aquatic Plan ogen Sulfide zed Rhizosphe ence of Redu nt Iron Redu Muck Surfac ge or Well Da er (Explain in	nts (B14) c Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9) Remarks)	Soils (C6)	SuDrDrCr:SatStuGeFA	rface So rainage F ry-Seaso ayfish Bi turation \ unted or eomorph C-Neutr	ill Cracks (Pattern (B n Water T urrows (Ci Visible on A Stressed nic Positio ral Test (D	B6) 10) able (C2) 8) serial Imagery (C9) Plants (D1) n (D2) 5)
YDROLOGY Vetland Hydrology Indica rimary Indicators (minimu Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer) ial Imagery (B:	7) 3) _ No;	Aqua Aqua True Hydr Oxidi: Prese Rece Thin Gaug Othe	er-Stained Le atic Fauna (B Aquatic Plan ogen Sulfide zed Rhizosphe ence of Redu nt Iron Redu Muck Surfac ge or Well Da er (Explain in	nts (B14) c Odor (C1) cres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9) Remarks)	Soils (C6)	Su Dr Cra Sta Stu Ge	rface So rainage F ry-Seaso ayfish Bi turation \ unted or eomorph C-Neutr	il Cracks (Pattern (B n Water T urrows (Ci Visible on A T Stressed nic Positio	B6) 10) able (C2) 8) serial Imagery (C9) Plants (D1) n (D2) 5)

Project/Site: Tatanka Ridge Wind Project		City/Count	ty: Deuel	County		San	npling Da	te: 8/2/2	2018
Applicant/Owner: Buffalo Ridge III, LLC			<u> </u>	Sta	te: SD	San	npling Po	int: DP0	37
Investigator(s): E. Schwartz, P. Swartzinski			Section	n, Towns	ship, Range:		, ,		
Landform (hillslope, terrace, etc.): depression	on	Lo	ocal relief	(concav	re, convex, none)	: Convex			
Slope (%): <5% Lat:							itum: NA	ND83	
Soil Map Unit Name:						WI classification	on:		
Are climatic/hydrologic conditions on the site ty	pical for this	time of year?	Yes	1 X	No (if r	no, explain in F	Remarks.)		
Are Vegetation No , Soil No , or Hydro	ology No	significantly of	disturbed?	? Are	"Normal Circums	stances" prese	nt? Yes	Χ	No
Are Vegetation No , Soil No , or Hydro	ology No	naturally pro	blematic?	(if n	eeded, explain ir	Remarks.)			
SUMMARY OF FINDINGS – Attach site	map show	ing samplin	g point	locatio	ons, transects	, important	feautre	es, etc.	
Hydrophytic Vegetation Present? Yes _	No	X							
Hydric Soil Present? Yes _	X No			-	oled Area etland?	Yes	No X	(
Wetland Hydrology Present? Yes	X No		With	iiii a vv	cuanu:			<u>-</u>	
Remarks: PEM									
VEGETATION – Use scientific names of	plants								
Tree Stratum (Plot size: 30)	Absolute % Cover	DominantS pecies?	Indicator Status		Dominance Te	st Worksheet			
, 	,0 COVCI	peoles.	Julius		Number of Dor	•		0	(A)
1.		· 		_	That Are OBL, I Total Number				(, ,)
		= Total Cov	er		Species Across			1	(B)
Sapling/Shrub Stratum (Plot size: 15)				Percent of Don That Are OBL, I	•		0.0%	(A/B)
1				_	Prevalence Ind	lex Workshee	t:		
		= Total Cov	er		Total % Cover of	of:	Mul	tiply by:	<u></u>
Herb Stratum (Plot size: 5					OBL species	0%	x 1	0.0%	
1. Glycine max	80%	Υ	UPL		FACW species	0%	x 2	0.0%	
2				-	FAC species	0%	x 3	0.0%	
	80%	= Total Cov	er		FACU species	0%	x 4	0.0%	
Woody Vine Stratum (Plot size: 15	_)				UPL species	80%	x 5	400.0%	
1.					Column Totals:		(A)	400%	(B)
 	-	= Total Cov	or	_	Prevalence I	ndex = B/A =		5.00	_
		= 10tal Cov	ei		Hydrophytic V	egetation Indi	icators:		
					N1 - Rapid T	est for Hydrop	hytic Veg	getation	
					N 2 - Domina	nce Test if >50	0%		
					N 3 - Prevale	nce Index is ≤	3.0		
					N 4 - Morpho data in Rer N Problemati	marks or on a	seperate	sheet)	
					ndicators of hydi present, unless d	ric soil and we	tland hyd	lrology mu	
					Hydrophytic Vegetation Present?	Yes	No	x	
Remarks: PEM no vegetation due to farmed l	and soybean	field							

Profile Description: (Des	cribe to the	depth neede	d to docum	ent the in	dicator or co	nfirm the a	bsence of indicator	
·	latrix			Redox Fe	eatures			
(inches) Color	9	6 <u> </u>	Color:	%	Type:	Loc:	Texture:	Remarks:
0-16 10YR 2	/1 10	0%					Clay Loam	
Type: C=Concentration,	D=Depletion,	RM=Reduce	d Matrix, CS	=Covered	or Coated Sa	nd Grains	Location: F	PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (/	Applicable to	all LRRs, unl	ess otherwi	se noted.))		Indicators for Problem	atic Hydric Soils
Histosol (A1) Histic Epipedon (A2 Black Histic (A3) Hydrogen Sulfide (A Stratified Layers (A1 2 cm Muck (A10) Depleted Below Da X Thick Dark Surface	,4) ,5) rk Surface (A A12)		Sandy Gley Sandy Redo Stripped M Loamy Mud Loamy Gley Depleted M Redox Dark Depleted D	ed Matrix ox (S5) atrix (S6) cky Minera yed Matrix Matrix (F3) c Surface (ark Surface	(S4) al (F1) c (F2) F6) ce (F7)		Coast Prairie Redo Dark Surface (S7) Iron-Manganese N Very Shallow Dark Other (Explain in I	oc (A16) Masses (F12) Surface (TF12) Remarks) tic vegetation and
Sandy Mucky Mine	aı (51)		_Redox Dep	ressions (F	-0)		wetland hydrology muddisturbed or problema	
Restrictive Layer (if pres Type: None Depth (inches): N Remarks: PEM							Hydric Soil Present?	Yes <u>X</u> No
HYDROLOGY Wetland Hydrology Indi Primary Indicators (mini Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (Drift Deposits (B3) Algal Mat or Crust (E Iron Deposits (B5) X Inundation Visible on A Sparsely Vegetated Co	mum of one 2) 32) 4) erial Imagery	- - - - - (B7)	Water-S Aquatic True Aq Hydroge Oxidized Presenc Recent Thin Mu	Stained Le Fauna (B1 uatic Plan en Sulfide Rhizosphei e of Redu	ts (B14) Odor (C1) res on Living Ro ced Iron (C4) ction in Tilled e (C7) ta (D9)		Surface So Drainage F Dry-Seasor Crayfish Br Saturation V X Stunted or X Geomorph	icators (2 or more required) il Cracks (B6) Pattern (B10) in Water Table (C2) currows (C8) Pisible on Aerial Imagery (C9) Testressed Plants (D1) Inic Position (D2) al Test (D5)
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data	Yes Yes	No X No X No X	Depth (i	inches):	NA NA NA previous insp		I Hydrology Present? available:	Yes <u>X</u> No
Remarks: Soybean fie	d							

Project/Site: Tatanka Ridge Wind Project		City/Cour	nty: De	euel Cour	nty	Sar	mpling Da	te: 8/2/2	2018
Applicant/Owner: Buffalo Ridge III, LLC					State: SD	Sar	mpling Po	nt: DP0	38
Investigator(s): E. Schwartz, P. Swartzinski			Sec	tion, Tov	vnship, Range:		,,		
Landform (hillslope, terrace, etc.): depression	on		Local re	elief (con	cave, convex, none)	: Linear S	lope		
Slope (%): <5% Lat:			Long:			Da	atum: NA	D83	
Soil Map Unit Name:					N	WI classificati	on:		
Are climatic/hydrologic conditions on the site ty	pical for this	time of year?	? Yes	Χ	_ No(if r	no, explain in	Remarks.)		
Are Vegetation No , Soil No , or Hydro	ology No	significantly	disturb	bed? A	re "Normal Circums	stances" prese	ent? Yes	X	No
Are Vegetation <u>No</u> , Soil <u>No</u> , or Hydro	ology No	naturally pr	oblema	atic? (i	f needed, explain ir	Remarks.)			
SUMMARY OF FINDINGS – Attach site	map show	ing sampli	ng poi	int loca	tions, transects	, important	t feautre	es, etc.	
Hydrophytic Vegetation Present? Yes _	No	X							
Hydric Soil Present? Yes	X No				mpled Area	W	NI - W		
		X	,	within a	Wetland?	Yes	_No _X	·	
Remarks:									
Upland									
·									
VEGETATION – Use scientific names of	plants								
Tree Stratum (Plot size: 30)	Absolute	DominantS			Dominance Te	st Worksheet	:		
Tree stratum (Flot size. 30)	% Cover	pecies?	Status	S	Number of Dor	minant Specie	!S		
					That Are OBL, I	FACW, or FAC	:	0	(A)
1					Total Number	of Dominant			
		= Total Co	ver		Species Across	All Strata:		1	(B)
Sapling/Shrub Stratum (Plot size: 15)				Percent of Don	•		0.0%	(A/B)
					That Are OBL, I	FACVV, OF FAC	· _	0.070	(,,,,,
1	-				Prevalence Ind	lex Workshee	et:		
	-	= Total Co	ver		Total % Cover	of:	Mult	iply by:	<u></u>
Herb Stratum (Plot size: 5					OBL species	0%	x 1	0.0%	
1. Glycine max	85%	Υ	UPI	L	FACW species	0%	x 2	0.0%	
2.					FAC species	0%	x 3	0.0%	_
	85%	= Total Co	ver		FACU species			0.0%	_
Woody Vine Stratum (Plot size: 15	1		• • •			0%	x 4		<u> </u>
Woody Vine Stratum (Plot size: 15	_)				UPL species	85%	x 5	425.0%	_
					Column Totals:	85.0%	(A)	425%	(B)
1		-			Prevalence I	ndex = B/A =		5.00	
		= Total Co	ver		Hydrophytic V	egetation Ind	icators:		
					N 1 - Rapid T			otation	
							, ,	etation	
					N 2 - Domina	ince Test if >5	0%		
					N 3 - Prevale	nce Index is ≤	3.0		
						marks or on a	seperate:	sheet)	
					N Problemat		_		
					Indicators of hydi				st be
					present, unless d	isturbed or pr	obiematic	; 	
					Hydrophytic Vegetation				
					Present?	Yes	No	Х	
Remarks: Upland					•				

Depth	Matrix			R	edox Fea	atures						
(inches) Colo	r:	%	Cold		%	Type:	Loc:	Texture	2:	R	emarks:	
0-16 10YR	2/1 1	100%						Clay Loan	m			
ype: C=Concentration	, D=Depletio	on, RM=Re	duced M	latrix, CS=0	Covered c	or Coated San	nd Grains	Loc	cation: P	L=Pore Lir	ning, M=N	Лatrix
lydric Soil Indicators:	(Applicable	to all LRRs	. unless	otherwise	noted.)			Indicators for P	Problem	atic Hydri	c Soils	
Histosol (A1)	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			ndy Gleyed		S 41		Coast Prair		•		
Histic Epipedon (A	2)			ndy Gleyet ndy Redox		34)		Dark Surfa		C (AIO)		
Black Histic (A3)	-,			ripped Mat				Iron-Mang		/lasses (F1	2)	
Hydrogen Sulfide	(A4)			amy Muck		(F1)		Very Shallo				
Stratified Layers (amy Gleye				Other (Exp			,	
2 cm Muck (A10)	,			pleted Ma		,				,		
Depleted Below D	ark Surface	(A11)		dox Dark S		6)						
X Thick Dark Surface Sandy Mucky Min	e (A12)		De	pleted Dar dox Depre	k Surface	e (F7)		Indicators of hy wetland hydrol disturbed or pro	ogy mus	st be prese		S
Restrictive Layer (if pro	esent):											
Type: None								Uudeia Cail Dee	con+3	Vos.	/ NI-	
Depth (inches):	NA		_					Hydric Soil Pres	sent?	Yes)	(No	
Remarks: Upland												
IYDROLOGY												
IYDROLOGY Wetland Hydrology Inc	dicators											
		e required	; check a	all that app	ly)			Second	dary Indi	cators (2 c	or more re	equired
Wetland Hydrology Ind Primary Indicators (mir Surface Water (A1)	nimum of on	e required	; check a	all that app _Water-Sta		ves (B9)		Sur	rface Soi	il Cracks (E	36)	equired
Wetland Hydrology Indexense Primary Indicators (mir Surface Water (A1) High Water Table (nimum of on	e required	; check a	Water-Sta	ined Lea auna (B13	3)		Sur Dra	rface Soi ainage P	il Cracks (E attern (B1	36) 0)	equired
Wetland Hydrology Inc Primary Indicators (mir Surface Water (A1) High Water Table (Saturation (A3)	nimum of on	e required	; check a	Water-Sta Aquatic Fa True Aqua	ined Lea auna (B13 atic Plant	3) s (B14)		Sur Dra Dry	rface Soi ainage P y-Seasor	il Cracks (E attern (B1 n Water Ta	36) 0) ible (C2)	equired
Wetland Hydrology Inc Primary Indicators (mir Surface Water (A1) High Water Table (Saturation (A3) Water Marks (B1)	nimum of on A2)	e required	; check a	Water-Sta Aquatic Fa True Aqua Hydrogen	iined Lea auna (B13 atic Plant Sulfide C	3) s (B14) Odor (C1)	(62)	Sur Dra Dry Cra	rface Soi ainage P y-Seasor ayfish Bu	il Cracks (E attern (B1 n Water Ta ırrows (C8	36) 0) able (C2))	
Primary Indicators (mir Surface Water (A1) High Water Table (Saturation (A3) Water Marks (B1) Sediment Deposits	nimum of on A2)	e required	; check a	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Rl	ined Lea auna (B13 atic Plants Sulfide C nizosphere	3) s (B14) Odor (C1) es on Living Roc	ots (C3)	Sur Dra Cra Satr	rface Soi ainage P y-Seasor ayfish Bu uration V	il Cracks (E attern (B1 n Water Ta ırrows (C8 'isible on Ae	86) 0) able (C2)) erial Image	ry (C9)
Wetland Hydrology Inc Primary Indicators (mir Surface Water (A1) High Water Table (Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3)	nimum of on A2) (B2)	e required	; check a	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Ri Presence	nined Lear nuna (B13 nitic Plant: Sulfide C nizosphere of Reduce	3) s (B14) Odor (C1) es on Living Roc ed Iron (C4)		Sur Dra Cra Sati Stu	rface Soi ainage P y-Seasor ayfish Bu uration V unted or	il Cracks (E attern (B1 n Water Ta urrows (C8 fisible on Ae Stressed I	36) 0) able (C2)) erial Image Plants (D1	ry (C9)
Primary Indicators (mir Surface Water (A1) High Water Table (Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust	nimum of on A2) (B2)	e required	; check a	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Ri Presence Recent Iro	nined Lea auna (B13 atic Plant: Sulfide C nizosphere of Reduct on Reduct	3) s (B14) Odor (C1) es on Living Roc ed Iron (C4) tion in Tilled S		Sur Dry Cra Stu Geo	rface Soi ainage P y-Seasor ayfish Bu uration V unted or omorph	il Cracks (E attern (B1 n Water Ta urrows (C8 visible on Ac Stressed I ic Position	36) 0) able (C2)) erial Image Plants (D1 (D2)	ry (C9)
Wetland Hydrology Incorporation Primary Indicators (mir Surface Water (A1) High Water Table (Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust Iron Deposits (B5)	(B2) (B4)		; check a	Water-Sta Aquatic Fo True Aqua Hydrogen Oxidized Ri Presence Recent Iro Thin Muc	nined Lear auna (B13 atic Plant: Sulfide C nizosphere of Reduct on Reduct & Surface	3) s (B14) Odor (C1) es on Living Roc ed Iron (C4) tion in Tilled S (C7)		Sur Dry Cra Stu Geo	rface Soi ainage P y-Seasor ayfish Bu uration V unted or omorph	il Cracks (E attern (B1 n Water Ta urrows (C8 fisible on Ae Stressed I	36) 0) able (C2)) erial Image Plants (D1 (D2)	ry (C9)
Primary Indicators (mir Surface Water (A1) High Water Table (Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust	nimum of on A2) (B2) (B4) Aerial Imager	ry (B7)	; check a	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Ri Presence Recent Iro Thin Muci Gauge or	nined Lear auna (B13 atic Plant: Sulfide C nizosphere of Reduct on Reduct & Surface Well Data	B) s (B14) Odor (C1) es on Living Roc ed Iron (C4) tion in Tilled S (C7) a (D9)		Sur Dry Cra Stu Geo	rface Soi ainage P y-Seasor ayfish Bu uration V unted or omorph	il Cracks (E attern (B1 n Water Ta urrows (C8 visible on Ac Stressed I ic Position	36) 0) able (C2)) erial Image Plants (D1 (D2)	ry (C9)
Primary Indicators (mir Surface Water (A1) High Water Table (Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Inundation Visible on	nimum of on A2) (B2) (B4) Aerial Imager	ry (B7)	; check a	Water-Sta Aquatic Fo True Aqua Hydrogen Oxidized Ri Presence Recent Iro Thin Muc	nined Lear auna (B13 atic Plant: Sulfide C nizosphere of Reduct on Reduct & Surface Well Data	B) s (B14) Odor (C1) es on Living Roc ed Iron (C4) tion in Tilled S (C7) a (D9)		Sur Dry Cra Stu Geo	rface Soi ainage P y-Seasor ayfish Bu uration V unted or omorph	il Cracks (E attern (B1 n Water Ta urrows (C8 visible on Ac Stressed I ic Position	36) 0) able (C2)) erial Image Plants (D1 (D2)	ry (C9)
Wetland Hydrology Incorring Surface Water (A1) High Water Table (Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Inundation Visible on Sparsely Vegetated C	(B2) (B4) Aerial Imager	ry (B7) ce (B8)		Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Ri Presence Recent Iro Thin Muc Gauge or Other (Ex	ined Lea auna (B13 atic Plant: Sulfide C nizosphere of Reduct on Reduct or Surface Well Data olain in R	3) s (B14) Odor (C1) es on Living Roc ed Iron (C4) tion in Tilled S (C7) a (D9) emarks)		Sur Dry Cra Stu Geo	rface Soi ainage P y-Seasor ayfish Bu uration V unted or omorph	il Cracks (E attern (B1 n Water Ta urrows (C8 visible on Ac Stressed I ic Position	36) 0) able (C2)) erial Image Plants (D1 (D2)	ry (C9)
Wetland Hydrology Incorring Surface Water (A1) High Water Table (Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Inundation Visible on Sparsely Vegetated C	(B2) (B4) Aerial Imageroncave Surface	ry (B7) ce (B8)	X	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Ri Presence Recent Iro Thin Muci Gauge or Other (Ex	ined Lear auna (B13 atic Plant: Sulfide C nizosphere of Reduct on Reduct of Surface Well Data blain in R	B) s (B14) Odor (C1) es on Living Roc ed Iron (C4) tion in Tilled S (C7) a (D9) emarks)		Sur Dry Cra Stu Geo	rface Soi ainage P y-Seasor ayfish Bu uration V unted or omorph	il Cracks (E attern (B1 n Water Ta urrows (C8 visible on Ac Stressed I ic Position	36) 0) able (C2)) erial Image Plants (D1 (D2)	ry (C9)
Wetland Hydrology Incorring Surface Water (A1) High Water Table (Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Inundation Visible on Sparsely Vegetated C	(B2) (B4) Aerial Imageroncave Surface ? Yes	ry (B7) te (B8) No _ No _		Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Ri Presence Recent Iro Thin Muc Gauge or Other (Ex	atic Plant: Sulfide Conizosphere of Reduct on Reduct of Surface Well Data colain in R	B) s (B14) Odor (C1) es on Living Roc ed Iron (C4) tion in Tilled S (C7) a (D9) emarks) NA NA	Soils (C6)	Sur Dry Cra Stu Geo	rface Soi ainage P y-Seasor ayfish Bu uration V Inted or omorph C-Neutra	il Cracks (E attern (B1 n Water Ta urrows (C8 visible on Ac Stressed I ic Position	36) 0) able (C2)) erial Image Plants (D1 (D2)	ry (C9)
Wetland Hydrology Incorring Surface Water (A1) High Water Table (Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Inundation Visible on Sparsely Vegetated C	(B2) (B4) Aerial Imageroncave Surface Yes Yes Yes	ry (B7) ce (B8)		Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Ri Presence Recent Iro Thin Muci Gauge or Other (Ex	atic Plant: Sulfide Conizosphere of Reduct on Reduct of Surface Well Data colain in R	B) s (B14) Odor (C1) es on Living Roc ed Iron (C4) tion in Tilled S (C7) a (D9) emarks)	Soils (C6)	Sur Dra Dry Cra Sati Stu FAC	rface Soi ainage P y-Seasor ayfish Bu uration V Inted or omorph C-Neutra	il Cracks (E attern (B1 n Water Ta urrows (C8 fisible on Ae Stressed I ic Position al Test (D5	36) 0) able (C2)) erial Image Plants (D1 (D2)	ry (C9) .)
Wetland Hydrology Incorring Surface Water (A1) High Water Table (Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Inundation Visible on Sparsely Vegetated Co	nimum of on A2) (B2) (B4) Aerial Imager oncave Surface Pes _ Yes _	ry (B7) te (B8) No No No	x x x	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Ri Presence Recent Iro Thin Muc Gauge or Other (Ex	ined Lear auna (B13 autic Plant: Sulfide C nizosphere of Reduct on Reduct of Surface Well Data plain in R	S) s (B14) Odor (C1) es on Living Roc ed Iron (C4) tion in Tilled S (C7) a (D9) emarks) NA NA NA	Soils (C6) Wetland	Sur Dra Dry Cra Satu Stu FAC	rface Soi ainage P y-Seasor ayfish Bu uration V Inted or omorph C-Neutra	il Cracks (E attern (B1 n Water Ta urrows (C8 fisible on Ae Stressed I ic Position al Test (D5	36) 0) able (C2)) erial Image Plants (D1 (D2)	ry (C9) .)

Hydric Soil Present? Yes	pical for this blogy No blogy No map show X No	time of year significantly naturally pro	Sec Local re Long: Yes disturb oblema	X ped? Are	nate: SD nship, Range: ave, convex, none): NW No (if no e "Normal Circumsta needed, explain in F ions, transects, i	Convex Datu /I classification o, explain in Rei ances" present Remarks.)	marks.) ? Yes eautres	83 X , etc.	
VEGETATION - Use scientific names of	nlants								
<u>Tree Stratum</u> (Plot size: 30) 1.	Absolute % Cover	DominantS pecies?	Indica Status		Dominance Test Number of Domi That Are OBL, FA Total Number of	inant Species ACW, or FAC:		3	(A)
		= Total Co	ver		Species Across A			3	(B)
Sapling/Shrub Stratum (Plot size: 15)	_			Percent of Domi That Are OBL, FA	•	10	0.0%	(A/B)
1.					Prevalence Inde	x Worksheet			
		= Total Co	ver		Total % Cover of		Multip	ly by:	
Herb Stratum (Plot size: 5)					OBL species	90%	x 1	90.0%	
Eleocharis palustris	65%	Υ	ОВ	L			_		_
2. Carex aquatilis	25%	Y	ОВ		FACW species	25%	x 2	50.0%	_
3. Phalaris arundinacea	25%	Υ	FAC		FAC species	0%	x 3	0.0%	<u>—</u>
4.		· 			FACU species	0%	x 4	0.0%	_
	115%	= Total Co	ver		UPL species	0%	x 5	0.0%	_
Woody Vine Stratum (Plot size: 15	1	10141 00	• • •		Column Totals:	115.0%	(A)	140%	(B)
woody vine stratum (Flot size. 15	_/				Prevalence Inc	dex = B/A =	1	.22	
1.					Hydrophytic Veg	getation Indica	tors:		
		= Total Co	ver		Y 1 - Rapid Tes	st for Hydrophy	tic Veget	ation	
					Y 2 - Dominan	ce Test if >50%	-		
					Y 3 - Prevalenc				
					Y 4 - Morpholo	ogical Adaptati arks or on a sep Hydrophytic V c soil and wetla	ons (Provoerate she getation on the contraction of	eet) ı (Explain)
					Hydrophytic Vegetation Present?	Yes <u>X</u>	_No		
Remarks: PEM					1				

•	latrix			Redox F	eatures					
(inches) Color:		%	Color:	%	Type:	Loc:	Tex	ture:	F	Remarks:
0-16 10YR 2,	/1 1	100%					Clay	Loam		
ype: C=Concentration, [D=Depletic	on, RM=Red	duced Matrix,	CS=Covered	l or Coated Sa	nd Grains		Location:	PL=Pore Li	ning, M=Matrix
lydric Soil Indicators: (A	pplicable	to all LRRs	, unless other	wise noted.)		Indicators	for Problen	natic Hydr	ic Soils
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A Stratified Layers (A5) 2 cm Muck (A10) Depleted Below Dar X Thick Dark Surface (Sandy Mucky Miner	4) 5) k Surface A12)		Sandy G Sandy Re Stripped Loamy N Loamy G Depleted Redox D Depleted	eyed Matrix edox (S5) Matrix (S6) Mucky Miner leyed Matri d Matrix (F3) ark Surface d Dark Surfa epressions (c (S4) ral (F1) x (F2)) (F6) ce (F7)		Dark S Iron-N Very S Other	Prairie Red Surface (S7) Manganese Shallow Dar (Explain in of hydrophydrology mu or problema	Masses (F: k Surface (Remarks) ytic vegeta ust be pres	TF12) tion and
Restrictive Layer (if pres Type: None Depth (inches): N							Hydric Soil	Present?	Yes	XNo
 IYDROLOGY										
IYDROLOGY Wetland Hydrology Indi	cators									
Wetland Hydrology Indi		e required	; check all tha	t apply)			Se	condary Inc	licators (2	or more required
Vetland Hydrology Indi Primary Indicators (minir X Surface Water (A1)	num of on	e required		t apply) r-Stained Le	eaves (B9)		Se	_Surface So	oil Cracks (B6)
Wetland Hydrology Indicerimary Indicators (minin X Surface Water (A1) X High Water Table (A2)	num of on	e required	Wate	r-Stained Le tic Fauna (B	13)		Se:	Surface So Drainage	oil Cracks (Pattern (B	B6) 10)
Wetland Hydrology Indicerimary Indicators (mining X Surface Water (A1) X High Water Table (A2 Saturation (A3)	num of on	e required	Wate Aqua True	r-Stained Le tic Fauna (B Aquatic Plar	13) nts (B14)		Se-	Surface So Drainage Dry-Seaso	oil Cracks (Pattern (Ba on Water T	B6) 10) able (C2)
Wetland Hydrology Indic Primary Indicators (minin X Surface Water (A1) X High Water Table (A2 X Saturation (A3) Water Marks (B1)	mum of on 2)	e required	Wate Aqua True Hydro	r-Stained Le tic Fauna (B Aquatic Plar ogen Sulfide	13) nts (B14) Odor (C1)		Se-	Surface So Drainage Dry-Seaso Crayfish B	oil Cracks (Pattern (B: on Water T Burrows (C	B6) 10) able (C2) 8)
Wetland Hydrology Indic Primary Indicators (minin X_Surface Water (A1) X_High Water Table (A2 X_Saturation (A3) Water Marks (B1) Sediment Deposits (B	mum of on 2)	e required	— Wate Aqua — True — Hydro — Oxidiz	r-Stained Le tic Fauna (B Aquatic Plar ogen Sulfide ed Rhizosphe	13) nts (B14) Odor (C1) eres on Living Ro	oots (C3)	Se-	Surface So Drainage Dry-Seaso Crayfish B Saturation	oil Cracks (Pattern (B: on Water T Burrows (CE Visible on A	B6) 10) able (C2) 8) erial Imagery (C9)
Wetland Hydrology Indic Primary Indicators (minin X Surface Water (A1) X High Water Table (A2 X Saturation (A3) Water Marks (B1) Sediment Deposits (B3)	num of on 2) 32)	e required	Wate Aqua True Hydri Oxidia Prese	r-Stained Le tic Fauna (B Aquatic Plar ogen Sulfide ed Rhizosphe ence of Redu	13) hts (B14) Hodor (C1) hres on Living Rouced Iron (C4)		_	Surface So Drainage Dry-Seaso Crayfish B Saturation Stunted o	oil Cracks (Pattern (B: on Water T Burrows (CE Visible on A r Stressed	B6) 10) able (C2) 8) erial Imagery (C9) Plants (D1)
Wetland Hydrology Indicerimary Indicators (mining X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B	num of on 2) 32)	e required	Aqua True Hydre Oxidiz Prese	r-Stained Le tic Fauna (B Aquatic Plar ogen Sulfide ed Rhizosphe ence of Redu nt Iron Redu	13) hts (B14) Odor (C1) eres on Living Ro uced Iron (C4) action in Tilled		x	Surface Son Drainage Dry-Season Crayfish B Saturation Stunted on Geomorp	oil Cracks (Pattern (B: on Water T Burrows (Ci Visible on A or Stressed hic Position	B6) 10) able (C2) 8) derial Imagery (C9) Plants (D1) n (D2)
Wetland Hydrology Indice Primary Indicators (mining X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B3)	mum of on 2) 32) 4) erial Imagei	ry (B7)	Aqua Aqua True Hydro Oxidiz Prese Rece Thin Gaug	r-Stained Le tic Fauna (B Aquatic Plar ogen Sulfide ed Rhizosphe ence of Redu	nts (B14) c Odor (C1) eres on Living Ro aced Iron (C4) action in Tilled te (C7) ata (D9)		x	Surface So Drainage Dry-Seaso Crayfish B Saturation Stunted o	oil Cracks (Pattern (B: on Water T Burrows (Ci Visible on A or Stressed hic Position	B6) 10) able (C2) 8) derial Imagery (C9) Plants (D1) n (D2)
Wetland Hydrology Indic Primary Indicators (minin X Surface Water (A1) X High Water Table (A2 X Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Inundation Visible on A Sparsely Vegetated Cor	mum of on 2) 32) 4) erial Imagei	ry (B7)	Aqua Aqua True Hydro Oxidiz Prese Rece Thin Gaug	r-Stained Le tic Fauna (B Aquatic Plar ogen Sulfide ed Rhizosphe ence of Redu nt Iron Redu Muck Surfac e or Well Da	nts (B14) c Odor (C1) eres on Living Ro aced Iron (C4) action in Tilled te (C7) ata (D9)		x	Surface Son Drainage Dry-Season Crayfish B Saturation Stunted on Geomorp	oil Cracks (Pattern (B: on Water T Burrows (Ci Visible on A or Stressed hic Position	B6) 10) able (C2) 8) derial Imagery (C9) Plants (D1) n (D2)
Wetland Hydrology Indic Primary Indicators (minin X Surface Water (A1) X High Water Table (A2 X Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B3 Iron Deposits (B5) Inundation Visible on A Sparsely Vegetated Cor	mum of on 2) 32) 4) erial Imagei ncave Surfac	ry (B7)	Aqua Aqua True Hydri Oxidiz Prese Rece Thin Gaug Othe	r-Stained Le tic Fauna (B Aquatic Plar ogen Sulfide ed Rhizosphe ence of Redu nt Iron Redu Muck Surfac e or Well Da	nts (B14) c Odor (C1) eres on Living Ro aced Iron (C4) action in Tilled te (C7) ata (D9)		x	Surface Son Drainage Dry-Season Crayfish B Saturation Stunted on Geomorp	oil Cracks (Pattern (B: on Water T Burrows (Ci Visible on A or Stressed hic Position	B6) 10) able (C2) 8) derial Imagery (C9) Plants (D1) n (D2)
Wetland Hydrology Indicerimary Indicators (mining X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B3) Iron Deposits (B5) Inundation Visible on A Sparsely Vegetated Cores Field Observations: Surface Water Present?	num of on 2) 32) 4) erial Imager ncave Surfac	ry (B7) ce (B8)	Aqua Aqua True Hydro Oxidiz Prese Rece Thin Gaug Othe	r-Stained Lettic Fauna (B Aquatic Plar ogen Sulfide ed Rhizosphe ence of Redu nt Iron Redu Muck Surfac e or Well Da r (Explain in	13) hts (B14) r Odor (C1) hres on Living Ro hred Iron (C4) httion in Tilled he (C7) htta (D9) Remarks)	Soils (C6)		Surface So Drainage Dry-Seaso Crayfish B Saturation Stunted o Geomorp FAC-Neut	oil Cracks (Pattern (Bi Pattern (Bi on Water T Burrows (Ci Visible on A or Stressed hic Position ral Test (Di	B6) 10) able (C2) 8) serial Imagery (C9) Plants (D1) n (D2) 5)
Wetland Hydrology Indic Primary Indicators (minir X Surface Water (A1) X High Water Table (A2 X Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5)	num of on 2) 32) 4) erial Imager ncave Surfact Yes Yes Yes Yes	ry (B7) ce (B8) X No	Aqua Aqua True Hydri Oxidiz Prese Rece Thin Gaug Othe	r-Stained Letic Fauna (B Aquatic Plar ogen Sulfide ed Rhizosphe ence of Redu nt Iron Redu Muck Surfac e or Well Da r (Explain in	13) hts (B14) c Odor (C1) eres on Living Ro aced Iron (C4) action in Tilled ace (C7) ata (D9) Remarks)	Soils (C6)	x	Surface So Drainage Dry-Seaso Crayfish B Saturation Stunted o Geomorp FAC-Neut	oil Cracks (Pattern (Bi Pattern (Bi on Water T Burrows (Ci Visible on A or Stressed hic Position ral Test (Di	B6) 10) able (C2) 8) derial Imagery (C9) Plants (D1) n (D2)

Slope (%): <5% Lat: Soil Map Unit Name: Are climatic/hydrologic conditions on the site ty Are Vegetation No , Soil No , or Hydro Are Vegetation No , Soil No , or Hydro SUMMARY OF FINDINGS – Attach site Hydrophytic Vegetation Present? Yes _ Hydric Soil Present? Yes _	pical for this blogy No blogy No map show No	Loca Lon time of year? Ye significantly dist naturally proble ing sampling p	Section, Tow I relief (conc g: ss X urbed? Ar matic? (if point locat	tate: SD nship, Range: ave, convex, none): NWI No (if no, re "Normal Circumstar needed, explain in Re cions, transects, in	Linear Slop Datui classification: explain in Rer nces" present	e m: NAD narks.) ? Yes eautres,	83 X , etc.	40
VEGETATION . Use scientific names of	nlants							
<u>Tree Stratum</u> (Plot size: <u>30</u>) 1.	Absolute % Cover		licator itus	Number of Domin That Are OBL, FAC Total Number of D	ant Species W, or FAC: Dominant		0	(A) (B)
Sapling/Shrub Stratum (Plot size: 15)	_ = Total Cover		Species Across All Percent of Domina That Are OBL, FAC	ant Species		.0%	(A/B)
1.				Prevalence Index	Worksheet:			
		= Total Cover		Total % Cover of:	TTO ROLLECT	Multip	ly by:	
Herb Stratum (Plot size: 5				OBL species	0%	x 1	0.0%	
1. Bromus inermis	65%	Y F	ACU	FACW species	0%	x 2	0.0%	
2. Phleum pratense	30%	<u>Y</u> F	ACU	FAC species	0%	x 3	0.0%	
3				FACU species	95%	x 4	380.0%	
	95%	_ = Total Cover		UPL species	0%	x 5	0.0%	
Woody Vine Stratum (Plot size: 15	_)			Column Totals:	95.0%	(A)	380%	(B)
1.				Prevalence Inde	ex = B/A =	4.	.00	
		= Total Cover		Hydrophytic Vege	tation Indica	tors:		
				N 1 - Rapid Test	for Hydrophy	tic Veget	ation	
				N 2 - Dominance	e Test if >50%			
				N 3 - Prevalence	Index is ≤ 3.0)		
				N 4 - Morpholog data in Remar N Problematic H Indicators of hydric s present, unless distu	ks or on a sep ydrophytic Ve oil and wetla	erate sh egetation nd hydro	eet) ı (Explair	n)
				Hydrophytic Vegetation Present?	Yes	No X	<u>(</u>	
Remarks: Upland				1				

Depth Matrix Redox Features Color: 9% Color: 9% Type: Loc: Texture: Remarks:	(:					the ax	osence of indicator	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histic Epipedon (A2) Sandy Gleyed Matrix (S4) Coast Prairie Redoc (A16) Histic Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Very Shallow Dark Surface (TF12) 2 cm Muck (A10) Depleted Matrix (F3) 2 cm Muck (A10) Depleted Matrix (F3) Depleted Bellow Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Dark Surface (F7) Back Tictive Layer (if present): Type: None Depth (Inches): NA Remarks: Upland HYDROLOGY Wetland Hydrology Indicators Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required Surface (F3) Surface (F3) Surface (F3) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Fauna (B14) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Primary Indicators (C3) Saturation (A3) Presence of Reduced from (C4) Sutrace (G3) Saturation Visible on Aerial Imagery (C9) FAC-Neutral Test (D5) Finundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9)	(inches) Color:	trix		Redox F	eatures			
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix Hydric Soil indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Gleyed Matrix (S4) Cast Prairie Redoc (A16) Histic Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) Black Histic (A3) Stripped Matrix (S6) Iron-Manganese Masses (F12) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Very Shallow Dark Surface (F12) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if present): Type: None Depth (inches): NA Remarks: Upland HYDROLOGY Wetland Hydrology Indicators Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) High Water Table (A2) Aquatic Fauns (B13) Saturation (A3) Drainage Pattern (B10) Surface Water (A1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation (A3) True Aquatic Plants (B14) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Drift Deposits (B3) Presence Reduced from (C4) Stunted or Stressed Plants (D1) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9)		%	Col	or: %	Type:	Loc:	Texture:	Remarks:
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Sandy Redox (55) Black Histic (A3) Black Histic (A3) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Stratified Layers (A5) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (F1) Depleted Below Dark Surface (A11) Redox Dark Surface (F7) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if present): Type: None Depth (inches): NA Remarks: Upland Hydrology Indicators Wetland Hydrology Indicators Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Fauna (B13) Saturation (A3) True Aquatic Fauna (B13) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Defit Deposits (B3) Presence of Reduced Iron (A4) Recent Iron Redox (D8) Indicators for Problematic Hydric Soils Loamy Surface (A16) Mater Marks (B1) Agal Mat or Crust (B4) Iron Deposits (B5) Indicators (A16) Indicators for Problematic Hydric Soils Coast Prairie Redoc (A16) Iron Dark Surface (A17) Wethough Surface (A17) Indicators (P12) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No X Secondary Indicators (2 or more required surface (A1) Dariange Pattern (B10) Drainage Pattern (B10) Surface Soil Cracks (B6) Dry-Season Water Table (C2) Crafish Burrows (C8) Saturated or Stressed Plants (D1) FAC-Neutral Test (D5)	0-16 10YR 4/3	100%					Loam	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Sandy Redox (55) Black Histic (A3) Black Histic (A3) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Stratified Layers (A5) Depleted Matrix (F3) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (F1) Depleted Below Dark Surface (A11) Redox Dark Surface (F7) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if present): Type: None Depth (inches): NA Remarks: Upland Hydrology Indicators Wetland Hydrology Indicators Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Fauna (B13) Saturation (A3) True Aquatic Fauna (B13) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Defit Deposits (B3) Presence of Reduced Iron (A4) Recent Iron Redox (D8) Indicators for Problematic Hydric Soils Loamy Surface (A16) Mater Marks (B1) Agal Mat or Crust (B4) Iron Deposits (B5) Indicators (A16) Indicators for Problematic Hydric Soils Coast Prairie Redoc (A16) Iron Dark Surface (A17) Wethough Surface (A17) Indicators (P12) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No X Secondary Indicators (2 or more required surface (A1) Dariange Pattern (B10) Drainage Pattern (B10) Surface Soil Cracks (B6) Dry-Season Water Table (C2) Crafish Burrows (C8) Saturated or Stressed Plants (D1) FAC-Neutral Test (D5)	Type: C=Concentration. D=	Depletion, RN	∕I=Reduced N	Лаtrix. CS=Covered	d or Coated Sar	nd Grains	Location: F	PL=Pore Lining, M=Matrix
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Histic Epipedon (A2) Black Histic (A3) Stripped Matrix (S6) Irlon-Managenese Masses (F12) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Other (Explain in Remarks) Depleted Below Dark Surface (F12) Other (Explain in Remarks) Depleted Below Dark Surface (A12) Depleted Dark Surface (F7) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Redox Depressions (F8) Redox Depressions (F8) Restrictive Layer (if present): Type: None Depth (inches): NA Remarks: Upland Hydrology Indicators Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Drainage Pattern (B10) Saturation (A3) True Aquatic Plants (B14) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Oxideded Rhizosphers on Living Roots (C3) Sediment Deposits (B2) Oxideded Rhizosphers on Living Roots (C3) Saturation (Visible on Aerial Imagery (C9) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9)		plicable to all						•
Black Histic (A3)					k (S4)			oc (A16)
Hydrogen Sulfide (A4) Stratified Layers (A5) Loamy Gleyed Matrix (F2) 2 cm Muck (A10) Depleted Matrix (F2) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Redox Depressions (F8) Depleted Below Dark Surface (A12) Sandy Mucky Mineral (S1) Redox Depressions (F8) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if present): Type: None Depth (inches): NA Remarks: Upland Hydrology Indicators Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Surface Water (A1) High Water Table (A2) Saturation (A3) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Orift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Iron Deposits (B3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Inim Muck Surface (C7) Gauge or Well Data (D9)			-					4 (542)
Stratified Layers (A5)			-					
2 cm Muck (A10) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Redox Dark Surface (F7) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if present): Type: None Depth (inches): NA Remarks: Upland HYDROLOGY Wetland Hydrology Indicators Primary Indicators (minimum of one required; check all that apply) Surface (S0il Cracks (B6) Primary Indicators (Indicators (Binimum of one required) Surface Water (A1) Drainage Pattern (B10) Saturation (A3) Aquatic Fauna (B13) Drainage Pattern (B10) Saturation (A3) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C3) Saturation (A3) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Indicator (C9) Indicator (C4) Sturted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) Gauge or Well Data (D9)								
Depleted Below Dark Surface (A12)							Other (Explain III I	verriar k3)
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Redox Depressions (F8) Secondary Indicators (2 or more required (F8)) Secondary Indicators (F8) Secondary Indicators (F8) Secondary Indicators	 ' '	Surface (A11)						
							Indicators of hydronhy	tic vegetation and
Type: None Depth (inches): NA Remarks: Upland Hydric Soil Present? Yes No X No X Primary Indicators Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) High Water Table (A2) Aquatic Fauna (B13) Drainage Pattern (B10) Saturation (A3) True Aquatic Plants (B14) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Seturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B5) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9)	Sandy Mucky Mineral	(S1)	Re	edox Depressions (F8)		wetland hydrology mus	st be present, unless
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Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5) Gauge or Well Data (D9)	Wetland Hydrology Indicat		uired; check	all that apply)			Secondary Indi	cators (2 or more required)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9)	Wetland Hydrology Indicat Primary Indicators (minimu Surface Water (A1)		uired; check	Water-Stained Le	٠,		Surface So	il Cracks (B6)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5) Gauge or Well Data (D9)	Wetland Hydrology Indicate Primary Indicators (minimuSurface Water (A1) High Water Table (A2)		uired; check 	Water-Stained Le Aquatic Fauna (B	13)		Surface So Drainage P	il Cracks (B6) Pattern (B10)
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Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9)	Wetland Hydrology Indicate Primary Indicators (minimu Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	ım of one req	uired; check — — — —	Water-Stained Le Aquatic Fauna (B True Aquatic Plar Hydrogen Sulfide Oxidized Rhizosphe Presence of Redu	13) hts (B14) Hodor (C1) heres on Living Rouced Iron (C4)		Surface So Drainage P Dry-Season Crayfish Bu Saturation V	il Cracks (B6) Pattern (B10) In Water Table (C2) Purrows (C8) Pisible on Aerial Imagery (C9) Stressed Plants (D1)
Sparsely Vegetated Concave Surface (B8)Other (Explain in Remarks)	Wetland Hydrology Indicate Primary Indicators (minimu Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	ım of one req	uired; check	Water-Stained Le Aquatic Fauna (B True Aquatic Plar Hydrogen Sulfide Oxidized Rhizosphe Presence of Redu Recent Iron Redu	13) ints (B14) c Odor (C1) eres on Living Rouced Iron (C4) action in Tilled		Surface So Drainage P Dry-Seasoi Crayfish Bu Saturation V Stunted or Geomorph	il Cracks (B6) Pattern (B10) In Water Table (C2) Jurrows (C8) Visible on Aerial Imagery (C9) In Stressed Plants (D1) Jurrows (D2)
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	Wetland Hydrology Indicate Primary Indicators (minimu Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeri	im of one requi		Water-Stained Le Aquatic Fauna (B True Aquatic Plar Hydrogen Sulfide Oxidized Rhizosphe Presence of Redu Recent Iron Redu Thin Muck Surfac Gauge or Well Da	nts (B14) c Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9)		Surface So Drainage P Dry-Seasoi Crayfish Bu Saturation V Stunted or Geomorph	il Cracks (B6) Pattern (B10) In Water Table (C2) Jurrows (C8) Visible on Aerial Imagery (C9) In Stressed Plants (D1) Jurrows (D2)
Field Observations: Surface Water Present? Yes No X Depth (inches): NA	Wetland Hydrology Indicate Primary Indicators (minimus Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeri Sparsely Vegetated Conca	im of one requi		Water-Stained Le Aquatic Fauna (B True Aquatic Plar Hydrogen Sulfide Oxidized Rhizosphe Presence of Redu Recent Iron Redu Thin Muck Surfac Gauge or Well Da	nts (B14) c Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9)		Surface So Drainage P Dry-Seasoi Crayfish Bu Saturation V Stunted or Geomorph	il Cracks (B6) Pattern (B10) In Water Table (C2) Jurrows (C8) Visible on Aerial Imagery (C9) In Stressed Plants (D1) Jurrows (D2)
Wester Table Present 2 Ves No Ves Porth (inches) No	Wetland Hydrology Indicators Primary Indicators (minimusurface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeri Sparsely Vegetated Conca	im of one requial Imagery (B7) Ive Surface (B8)		Water-Stained Le Aquatic Fauna (B True Aquatic Plar Hydrogen Sulfide Oxidized Rhizosphe Presence of Redu Recent Iron Redu Thin Muck Surfac Gauge or Well Da Other (Explain in	nts (B14) c Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9) Remarks)		Surface So Drainage P Dry-Seasoi Crayfish Bu Saturation V Stunted or Geomorph	il Cracks (B6) Pattern (B10) In Water Table (C2) Jurrows (C8) Visible on Aerial Imagery (C9) In Stressed Plants (D1) Jurrows (D2)
wetialid Hydrology Present: TesNO _X	Wetland Hydrology Indicator Primary Indicators (minimusurface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeri Sparsely Vegetated Conca	im of one required in the second seco	No _ X	Water-Stained Le Aquatic Fauna (B True Aquatic Plar Hydrogen Sulfide Oxidized Rhizosphe Presence of Redu Recent Iron Redu Thin Muck Surfac Gauge or Well Da Other (Explain in	nts (B14) e Odor (C1) eres on Living Rouced Iron (C4) uction in Tilled te (C7) ata (D9) Remarks)	Soils (C6)	Surface So Drainage F Dry-Seasor Crayfish Br Saturation N Stunted or Geomorph FAC-Neutr	il Cracks (B6) Pattern (B10) In Water Table (C2) Purrows (C8) Pisible on Aerial Imagery (C9) In Stressed Plants (D1) Place Position (D2) In Test (D5)
(includes capillary fringe)	Wetland Hydrology Indicators Primary Indicators (minimusurface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeri Sparsely Vegetated Conca	im of one required in the second seco	NoX	Water-Stained Le Aquatic Fauna (B True Aquatic Plar Hydrogen Sulfide Oxidized Rhizosphe Presence of Redu Recent Iron Redu Thin Muck Surfac Gauge or Well Da Other (Explain in	nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) erta (D9) Remarks)	Soils (C6)	Surface So Drainage F Dry-Seasor Crayfish Br Saturation N Stunted or Geomorph FAC-Neutr	il Cracks (B6) Pattern (B10) In Water Table (C2) Purrows (C8) Pisible on Aerial Imagery (C9) In Stressed Plants (D1) Place Position (D2) In Test (D5)
Describe Recorded Data (stream guage, monitoring well, aerial photos, previous inspections), if available:	Wetland Hydrology Indicate Primary Indicators (minimusurface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeri Sparsely Vegetated Conca	im of one required in the second seco	NoX NoX NoX	Water-Stained Le Aquatic Fauna (B True Aquatic Plar Hydrogen Sulfide Oxidized Rhizosphe Presence of Redu Recent Iron Redu Thin Muck Surfac Gauge or Well Da Other (Explain in	nts (B14) c Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9) Remarks) NA NA NA	Soils (C6) Wetland	Surface So Drainage P Dry-Season Crayfish Bu Saturation N Stunted or Geomorph FAC-Neutr	il Cracks (B6) Pattern (B10) In Water Table (C2) Purrows (C8) Pisible on Aerial Imagery (C9) In Stressed Plants (D1) Place Position (D2) In Test (D5)

Hydric Soil Present? Yes _	rpical for this blogy No blogy No map show X No	time of year? significantly naturally pro	Section Long: Yes disturbed bblematica Is the	State: SD n, Township, Range: (concave, convex, no X No Are "Normal Circu (if needed, explai	ne): Convex Date NWI classification (if no, explain in Reumstances" presen	um: NAD83 n: emarks.) t? Yes	
VEGETATION – Use scientific names of Tree Stratum (Plot size: 30) 1. Salix amygdaloides 2. Sapling/Shrub Stratum (Plot size: 15	Absolute % Cover 15% 15%	DominantS pecies? Y = Total Cov	Status FACW	Number of That Are OE Total Numb Species Acre Percent of I That Are OE	Test Worksheet: Dominant Species BL, FACW, or FAC: er of Dominant oss All Strata: Dominant Species BL, FACW, or FAC:	3 100.09	(A) (B) % (A/B)
1	60% 20% 80%	= Total Cov	FACW FACW	Total % Cov OBL species FACW species FAC species FACU species UPL species Column Tot Prevalence	es 95% 0% es 0% 0% als: 95.0% ce Index = B/A =	x 2 190 x 3 0. x 4 0. x 5 0. (A) 19 2.00	0% 0.0% 0% 0% 0% 0% 00% (B)
		_ = Total Co	ver	Y 1 - Rapi Y 2 - Dom Y 3 - Prev Y 4 - Mor data in N Probler		ytic Vegetation 0 ions (Provide perate sheet /egetation (Example)	supporting) xplain)
Remarks: PEM WITH SCATTERED WILLOWS							

Profile Description: (Descri	be to the c	depth n	eeded to	document the	indicator or co	nfirm the a	bsence of indicator	
Depth Mat	rix			Redox I	Features			
(inches) Color:	%		Colc	or: %	Type:	Loc:	Texture:	Remarks:
0-16 10YR 2/1	100	1%					Clay Loam	
Type: C=Concentration, D=I	Depletion,	RM=Red	duced M	atrix, CS=Covere	d or Coated Sa	nd Grains	Location:	PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (App							Indicators for Problem	matic Hydric Soils
Histosol (A1)	incable to	uii Litits		ndy Gleyed Matri			Coast Prairie Rec	•
Histic Epipedon (A2)				ndy Redox (S5)	IX (34)		Dark Surface (S7	, ,
Black Histic (A3)				ipped Matrix (S6)		Iron-Manganese	
Hydrogen Sulfide (A4)				amy Mucky Mine			Very Shallow Da	
Stratified Layers (A5)				amy Gleyed Matr			Other (Explain in	
2 cm Muck (A10)				pleted Matrix (F3			` .	,
Depleted Below Dark S	Surface (A1	1)	Re	dox Dark Surface	(F6)			
X Thick Dark Surface (A1	2)		De	pleted Dark Surfa	ace (F7)		Indicators of hydroph	ytic vegetation and
Sandy Mucky Mineral	(S1)		Re	dox Depressions	(F8)			ust be present, unless
Restrictive Layer (if presen	t):							
Type: None							Hydric Soil Present?	Yes X No
Depth (inches): NA							,	
Remarks: PEM						ı,		
HYDROLOGY								
Wetland Hydrology Indicat	ors							
Primary Indicators (minimu	m of one re	equired	; check a	ll that apply)			Secondary In	dicators (2 or more required)
Surface Water (A1)				Water-Stained L	eaves (B9)		Surface S	oil Cracks (B6)
High Water Table (A2)				Aquatic Fauna (I			•	Pattern (B10)
Saturation (A3)				True Aquatic Pla				on Water Table (C2)
Water Marks (B1)				Hydrogen Sulfid	, ,	. (00)		Burrows (C8)
Sediment Deposits (B2)				Oxidized Rhizosph	_	oots (C3)		Visible on Aerial Imagery (C9)
Drift Deposits (B3)				Presence of Red	, ,	Soils (CC)		or Stressed Plants (D1)
Algal Mat or Crust (B4) Iron Deposits (B5)			-	Recent Iron Red Thin Muck Surfa		3011S (C6)	X FAC-Neu	phic Position (D2)
X Inundation Visible on Aeri	al Imagery (E	37)		Gauge or Well D	. ,		X PAC-Neu	trai rest (D3)
Sparsely Vegetated Conca				Other (Explain in				
_					·			
Field Observations:								
Surface Water Present?	Yes			Depth (inches):	NA			
Water Table Present?	Yes			Depth (inches):	NA	Wetland	d Hydrology Present?	Yes X No
Saturation Present?	Yes	No	Х	Depth (inches):	NA			
(includes capillary fringe)								
Describe Recorded Data (st	ream guage	e, moni	toring w	ell, aerial photos	, previous insp	ections), if a	available:	

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC Investigator(s): E. Schwartz, P. Swartzinski Landform (hillslope, terrace, etc.): depression	on	*	Sect	tion, Tow lief (cond	State: <u>SD</u> vnship, Range: cave, convex, none	Sam e): <u>Linear Sl</u>		nt: DP04	
Slope (%): <5% Lat: Soil Map Unit Name: Are climatic/hydrologic conditions on the site ty Are Vegetation No , Soil No , or Hydro Are Vegetation No , Soil No , or Hydro SUMMARY OF FINDINGS – Attach site	ology No ology No	time of year? significantly naturally pro	? Yes _ disturb	X ped? A tic? (i	_ No(if re "Normal Circum f needed, explain i	NWI classification no, explain in Restances" present no Remarks.)	emarks.) nt? Yes	X	No
Hydrophytic Vegetation Present? Yes _ Hydric Soil Present? Yes _ Wetland Hydrology Present? Yes _ Remarks: Upland	X No	X	ı	s the Sa	mpled Area Wetland?	Yes			
<u>Tree Stratum</u> (Plot size: 30) 1.	Absolute % Cover	DominantS pecies?	Indicat Status		Number of Do	est Worksheet: minant Species FACW, or FAC: of Dominant		0	(A)
Sapling/Shrub Stratum (Plot size: 15)	= Total Cov	ver		Species Across Percent of Do				(B) (A/B)
1		= Total Cov	ver		Prevalence In	dex Worksheet		ply by:	
Herb Stratum (Plot size: 5) 1. Bromus inermis 2. Phleum pratense 3. Phalaris arundinacea 4.	60% 20% 15% 95%	Y Y N = Total Cov	FACU FACV Ver	J	OBL species FACW species FAC species FACU species UPL species Column Totals	0% 15% 0% 80% 0%	x1 _ x2 _ x3 _ x4 _ x5 _ (A) _	0.0% 30.0% 0.0% 320.0% 0.0% 350% 3.68	
1.		_ = Total Cov	ver		N 1 - Rapid 1 N 2 - Domin N 3 - Prevale N 4 - Morph data in Re		hytic Vego 3.0 tions (Pro eperate s Vegetatic land hydr	ovide supp heet) on (Explain	1)
Remarks: Upland					Hydrophytic Vegetation Present?	Yes	No	х	

Profile Description: (Desc	ribe to the	depth n	eeded t	o document the i	indicator or co	nfirm the a	bsence of indicator	
Depth Ma	itrix			Redox F	eatures			
(inches) Color:	%	6	Cole	or: %	Type:	Loc:	Texture:	Remarks:
0-16 10YR 3/2	2 100	0%					Clay Loam	
Type: C=Concentration, D	Depletion,	, RM=Red	duced M	latrix, CS=Covere	d or Coated Sa	nd Grains	Location:	PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (Ap							Indicators for Probler	
Histosol (A1)	piicable to	an 211110		ndy Gleyed Matri			Coast Prairie Red	•
Histic Epipedon (A2)				ndy Redox (S5)	IX (34)		Dark Surface (S7)	` '
Black Histic (A3)				ripped Matrix (S6)		Iron-Manganese	
Hydrogen Sulfide (A4)			amy Mucky Mine			Very Shallow Dar	
Stratified Layers (A5)	•			amy Gleyed Matr			Other (Explain in	
2 cm Muck (A10)				epleted Matrix (F3				·
Depleted Below Dark	Surface (A:	11)	Re	dox Dark Surface	(F6)			
X Thick Dark Surface (A	12)		De	epleted Dark Surfa	ace (F7)		Indicators of hydroph	ytic vegetation and
Sandy Mucky Minera	l (S1)		Re	edox Depressions	(F8)		wetland hydrology modisturbed or problems	ust be present, unless
Restrictive Layer (if prese	nt):						<u> </u>	
Type: None							Hydric Soil Present?	Yes X No
Depth (inches): NA							riyane son rresent:	163 <u>X</u> 110
Remarks: Upland								
HYDROLOGY								
Wetland Hydrology Indica	ators							
Primary Indicators (minim	um of one i	required	; check a	all that apply)			Secondary Inc	dicators (2 or more required)
Surface Water (A1)				Water-Stained L	eaves (B9)		Surface S	oil Cracks (B6)
High Water Table (A2)				Aquatic Fauna (E	313)		Drainage	Pattern (B10)
Saturation (A3)				_True Aquatic Pla	nts (B14)		Dry-Seaso	on Water Table (C2)
Water Marks (B1)				_Hydrogen Sulfid				Burrows (C8)
Sediment Deposits (B2	<u>?)</u>			Oxidized Rhizosph		oots (C3)		Visible on Aerial Imagery (C9)
Drift Deposits (B3)	`		_	_Presence of Red	` '	C - : I - /CC)		or Stressed Plants (D1)
Algal Mat or Crust (B4)			Recent Iron Red Thin Muck Surfa		Solis (C6)		hic Position (D2) ral Test (D5)
Iron Deposits (B5) Inundation Visible on Ae	rial Imagery ((B7)		Gauge or Well D	` '		FAC-Neut	rai rest (D5)
Sparsely Vegetated Conc	•			Other (Explain in				
					·			
Field Observations:								
Surface Water Present?	Yes	No	X	Depth (inches):	NA			
Water Table Present?	Yes			Depth (inches):	NA	Wetland	d Hydrology Present?	YesNoX
Saturation Present? (includes capillary fringe)	Yes	No _	X	Depth (inches):	NA			
Describe Recorded Data (s	tream guar	ge, moni	toring w	vell, aerial photos	, previous insn	ections). if a	available:	
Remarks:		J - , 		, p o . o .	, ₁			
nemarks.								

	pical for this plogy No plogy No map show X No	time of year? significantly naturally pro ing sampli	Section Sectin Section Section Section Section Section Section Section Section	Sta on, Town ef (conca X ed? Are c? (if r	ate: SD ship, Range: ve, convex, none) NO (if r "Normal Circums needed, explain ir ons, transects	Sample: Convex Datu WI classification: no, explain in Rer stances" present n Remarks.)	marks.) ? Yes eautres	83 X	
VEGETATION – Use scientific names of Tree Stratum (Plot size: 30)	plants Absolute % Cover	DominantS pecies?	Indicato Status	or	Dominance Te	minant Species			
1)	= Total Co	ver		That Are OBL, I Total Number of Species Across Percent of Don That Are OBL, I	of Dominant All Strata: ninant Species	10	3	(A) (B) (A/B)
1. Herb Stratum (Plot size: 5) 1. Typha angustifolia 2. Phalaris arundinacea 3. Spartina pectinata 4. Urtica dioica 5.	55% 45% 35% 5%	= Total Cor	OBL FACW FACW		Total % Cover of OBL species FACW species FAC species FACU species UPL species Column Totals:	55% 85% 0% 0% 0%	x 3 x 4 x 5 (A)	55.0% 170.0% 0.0% 0.0% 0.0% 225%	
Woody Vine Stratum (Plot size: 15 1		= Total Co	ver		Hydrophytic V Y 1 - Rapid T Y 2 - Domina Y 3 - Prevale Y 4 - Morpho data in Rer N Problemat Indicators of hydrophytic	egetation Indica est for Hydrophy ince Test if >50% nce Index is ≤ 3.0 plogical Adaptatio marks or on a sep ic Hydrophytic Voric soil and wetla	tors: tic Veget ons (Proverate shegetation	ration ride supp eet) n (Explain	ı)
Remarks: PEM					Vegetation Present?	Yes X	No		

Profile Descr	iption: (Describ	e to the de	oth needed	to document the	indicator or co	nfirm the a	bsence of indicator	
Depth	Matri	x		Redox I	Features			
(inches)	Color:	%	Co	olor: %	Type:	Loc:	Texture:	Remarks:
0-16	10YR 2/1	100%					Clay Loam	
Type: C=Cond	centration. D=De	epletion. RN	∕l=Reduced	Matrix, CS=Covere	d or Coated Sa	nd Grains	Location:	PL=Pore Lining, M=Matrix
• • • • • • • • • • • • • • • • • • • •	· · · · · · · · · · · · · · · · · · ·	•		ss otherwise noted			Indicators for Problem	
Histosol Histic Ep Black Hi Hydroge Stratifie 2 cm Mi Deplete X Thick Da		rface (A11)		Sandy Gleyed Matri Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mine Loamy Gleyed Matri Depleted Matrix (F3 Redox Dark Surface Depleted Dark Surface Redox Depressions	ix (S4)) eral (F1) rix (F2) 3) e (F6) ace (F7)		Coast Prairie Red Dark Surface (S7) Iron-Manganese Very Shallow Dar Other (Explain in Indicators of hydrophy wetland hydrology mudisturbed or problema	oc (A16) Masses (F12) k Surface (TF12) Remarks) ytic vegetation and ust be present, unless
Type: <u>N</u> Depth (ir		:					Hydric Soil Present?	Yes <u>X</u> No
Primary Indic	drology Indicato cators (minimum Water (A1) ter Table (A2)		uired; chec —	k all that apply) Water-Stained L Aquatic Fauna (I True Aquatic Pla	B13)		Surface So Drainage	licators (2 or more required) oil Cracks (B6) Pattern (B10) on Water Table (C2)
Water M Sedimen Drift Dep Algal Ma Iron Dep Inundatio				Hydrogen Sulfid Oxidized Rhizosph Presence of Red Recent Iron Red Thin Muck Surfa Gauge or Well D Other (Explain in	e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ace (C7) pata (D9)		Crayfish B Saturation Stunted o	surrows (C8) Visible on Aerial Imagery (C9) r Stressed Plants (D1) hic Position (D2)
Field Observe Surface Water Water Table Saturation Pr (includes cap	er Present? Present? resent? villary fringe)	Yes X Yes X Yes X	No	•	1 0 0		d Hydrology Present?	Yes <u>X</u> No
Remarks:	2222300		29	3, 22 p505	, ,			

Project/Site: Tatanka Ridge Wind Project		City/Cour	nty: Deu	iel County	,	Sampl	ing Dat	e: 8/3/	2018
Applicant/Owner: Buffalo Ridge III, LLC		·		Sta	ite: SD	Samp	ing Poir	nt: DP0)44
Investigator(s): E. Schwartz, P. Swartzinski			Secti	ion, Town	ship, Range:		, ,		
Landform (hillslope, terrace, etc.): depression	on		Local reli	ief (concav	ve, convex, none):	Linear Slop	е		
Slope (%): <5% Lat:			Long:			Datu	m: NAI	D83	
Soil Map Unit Name:						'I classification:			
Are climatic/hydrologic conditions on the site ty	pical for this	time of year?	? Yes	Х	No (if no	, explain in Rer	narks.)		
Are Vegetation No , Soil No , or Hydr	ology No	significantly	disturbe	ed? Are	"Normal Circumsta	ances" present	? Yes	Χ	No
Are Vegetation No , Soil No , or Hydr	ology No	naturally pr	oblemati	ic? (if n	eeded, explain in R	Remarks.)			· ·
SUMMARY OF FINDINGS – Attach site	map show	ing sampli	ng poin	nt location	ons, transects, i	mportant fe	autre	s, etc.	
Hydrophytic Vegetation Present? Yes	No	X							
Hydric Soil Present? Yes	X No			the Sam	_	Vos N	. v		
Wetland Hydrology Present? Yes	No	X	W	vithin a W	etland?	YesN		<u>—</u>	
Remarks: Upland									
VEGETATION – Use scientific names of	•								
Tree Stratum (Plot size: 30)	Absolute % Cover	DominantS pecies?	Indicato Status	or	Dominance Test	Worksheet:			
, , , , , , , , , , , , , , , , , , , ,	70 COVE	pecies:	Status		Number of Domi That Are OBL, FA			1	(A)
1.		= Total Co	ver		Total Number of Species Across A			3	(B)
Sapling/Shrub Stratum (Plot size: 15)				Percent of Domir That Are OBL, FA	•	3	33.3%	(A/B)
1.		-			Prevalence Index	x Worksheet:			
		= Total Co	ver		Total % Cover of:	:	Multi	iply by:	
Herb Stratum (Plot size: 5)					OBL species	0%	x 1	0.0%	
1. Bromus inermis	45%	Υ	FACU		•		_		
2. Phalaris arundinacea	30%	Υ	FACW		FACW species	35%	x 2 _	70.0%	_
3. Phleum pratense	30%	Υ	FACU		FAC species	0%	x 3	0.0%	_
4. Solidago gigantea	5%	N	FACW		FACU species	75%	x 4	300.0%	
		===			UPL species	0%	x 5	0.0%	
5	-				Column Totals:	110.0%	(A)	370%	(B)
	110%	= Total Co	ver		Prevalence Inc		_	3.36	(5)
Woody Vine Stratum (Plot size: 15)				Hydrophytic Veg	-			
1					N 1 - Rapid Tes			etation	
		= Total Co	ver		N 2 - Dominano		_		
					N 3 - Prevalence				
					N 4 - Morpholo data in Rema N Problematic Indicators of hydric present, unless dist	arks or on a ser Hydrophytic Ve soil and wetla	erate s egetation nd hydr	heet) on (Explair	n)
					Hydrophytic Vegetation Present?	Yes	No	<u>x</u>	
Remarks: Upland on access road									

Profile Description: (Describ	e to the depti	n needed	to document the i	ndicator or co	nfirm the a	bsence of indicator	
Depth Matr	ix		Redox F	eatures			
(inches) Color:	%	Со	lor: %	Type:	Loc:	Texture:	Remarks:
0-16 10YR 2/1	100%					Clay Loam	
Type: C=Concentration, D=D	enletion RM=	Reduced	Matrix CS=Covered	d or Coated Sa	nd Grains	Location: Pl	.=Pore Lining, M=Matrix
					ilu Grains		
Hydric Soil Indicators: (Appl	icable to all LF	RRs, unles	s otherwise noted	.)		Indicators for Problema	tic Hydric Soils
Histosol (A1)			andy Gleyed Matri	x (S4)		Coast Prairie Redo	: (A16)
Histic Epipedon (A2)			andy Redox (S5)			Dark Surface (S7)	
Black Histic (A3)			tripped Matrix (S6)			Iron-Manganese M	
Hydrogen Sulfide (A4)			oamy Mucky Miner			Very Shallow Dark	
Stratified Layers (A5) 2 cm Muck (A10)			oamy Gleyed Matri Depleted Matrix (F3			Other (Explain in R	emarks)
Depleted Below Dark St	ırface (A11)		ledox Dark Surface				
X Thick Dark Surface (A12			Depleted Dark Surfa			Indicators of hydrophyti	a vagatation and
Sandy Mucky Mineral (S	•		Redox Depressions (wetland hydrology must disturbed or problemati	be present, unless
Restrictive Layer (if present):					·	
Type: None						Hydric Soil Present?	Yes X No
Depth (inches): NA						rryane son rresent.	<u> </u>
Remarks:					ļ		
HYDROLOGY							
Wetland Hydrology Indicato	rs						
Primary Indicators (minimun	n of one requir	ed; check	all that apply)			Secondary Indic	ators (2 or more required)
Surface Water (A1)			Water-Stained Le	eaves (B9)		Surface Soil	Cracks (B6)
High Water Table (A2)			Aquatic Fauna (B			Drainage Pa	
Saturation (A3)		_	True Aquatic Pla				Water Table (C2)
Water Marks (B1)		_	Hydrogen Sulfide		-1- (62)	Crayfish Bu	` '
Sediment Deposits (B2)		=	Oxidized Rhizosphe	_	oots (C3)		sible on Aerial Imagery (C9)
Drift Deposits (B3) Algal Mat or Crust (B4)		_	Presence of Redu Recent Iron Redu	` '	Soils (C6)		Stressed Plants (D1) c Position (D2)
Iron Deposits (B5)		_	Thin Muck Surface		30113 (C0)	FAC-Neutra	
Inundation Visible on Aeria	Imagery (B7)	_	Gauge or Well Da	. ,			1 1630 (153)
Sparsely Vegetated Concav	e Surface (B8)	_	Other (Explain in				
Field Observations: Surface Water Present?	Yes N	o X	Depth (inches):	NA			
Water Table Present?	Yes N		Depth (inches):	NA	3471	Librahaalaan B. 23	V N Y
	Yes N				wetland	l Hydrology Present?	Yes No X
(includes capillary fringe)			Depth (inches):	NA		allahla.	
Describe Recorded Data (str	eam guage, mo	onitoring	well, aerial photos,	previous insp	ections), if a	available:	
Remarks: No hydrology							

	pical for this plogy No plogy No map show X No	time of year? significantly naturally pro ing sampli	Section Sectin Section Section Section Section Section Section Section Section	Sition, Tow lief (conc X ped? Ar tic? (if nt locat	tate: SD nship, Range: ave, convex, none) No (if n e "Normal Circums needed, explain in	Sampl Convex Datur VI classification: o, explain in Ren tances" present	m: NAD83 narks.) ? Yes	DP045	
VEGETATION – Use scientific names of	Absolute	DominantS			Dominance Tes	t Worksheet:			
Tree Stratum (Plot size: 30)	% Cover	pecies?	Status		Number of Don That Are OBL, F Total Number of	ACW, or FAC: of Dominant	2	`	
Sapling/Shrub Stratum (Plot size: 15)	= Total Co	ver		Species Across and Percent of Domestin That Are OBL, F	inant Species	100.0		
1		= Total Co	ver		Prevalence Ind		Multiply	by:	
Herb Stratum (Plot size: 5) 1. Typha angustifolia 2. Phalaris arundinacea 3. Persicaria pensylvanica 4. Woody Vine Stratum (Plot size: 15	75% 35% 25% 135%	Y Y N = Total Co	FACV FACV ver	N	OBL species FACW species FAC species FACU species UPL species Column Totals: Prevalence Ir		x 2 12 x 3 0 x 4 0 x 5 0		(B)
1.		= Total Co	ver		Y 1 - Rapid Te Y 2 - Dominal Y 3 - Prevaler Y 4 - Morpho data in Ren	sturbed or probl	tic Vegetations (Provide sheet sheet egetation (Earth should be getation (Earth should be should	e support t) Explain)	
Remarks: PEM									

ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Gleyed Matrix (S5) Black Histic (A3) Stripped Matrix (S5) Dark Surface (S7) Fron-Manganese Masses (F12) Very Shallow Dark Surface (S7) Loamy Gleyed Matrix (F2) Depleted Bedw Dark Surface (A11) Depleted Bedw Dark Surface (A11) Pepleted Bedw Dark Surface (A11) Sandy Mucky Mineral (F1) Sandy Mucky Mineral (S1) Depleted Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) Very Shallow Dark Surface (F12) Indicators of hydrophytic vegetation and wettand hydrology must be present, unless disturbed or problematic. **Strictive Layer (if present): Type: None Depth (inches): NA emarks: PEM **YDROLOGY** Vetland Hydrology Indicators rimary indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Sediment Deposits (B2) Doxidized Rhizospheres on Living Roots (C3) Sediment Deposits (B3) Presence? Reduced Forn (C4) Agal Mat or Crust (B4) Indicators for Problematic Hydric Soils Sediment Deposits (B3) Presence? Reduced Forn (C4) Surface Water Marks (B1) Algal Mat or Crust (B4) Indicators for Problematic Hydric Soils (C6) Tinn Manganese Masses (F12) Tother (Explain in Remarks) **YDROLOGY** Vetland Hydrology Indicators rimary indicators (Indicators (In	(:l)	atrix					eatures					Danasala
ype: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Coation: PL=Pore Lining, M=Matrix Indicators for Problematic Hydric Soils	inches) Color:		<u></u>	Col	lor:	%	Type:	Loc:	<u></u>	exture:		Remarks:
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosoi (A1) Histosoi (A1) Histosoi (A1) Sandy Gleyed Matrix (S4) Biack Histic (A2) Biack Histic (A2) Stripped Matrix (S6) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Loamy Gleyed Matrix (F3) Depleted Below Dark Surface (A11) Redox Depressions (F8) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. **Property Office Soil Present** **PROLOGY** **VOROLOGY** **VOROLOGY**	0-16 10YR 2/	1 100	0%						Cl	lay Loam		
Histosol (A1) Histosol (A2) Sandy Gleyed Matrix (S4) Black Histic (A2) Sandy Gleyed Matrix (S6) Black Histic (A2) Straped Matrix (S6) Hydrogen Sulfide (A4) Stratified Layers (A5) Zen Muck (A10) Depleted Matrix (F2) Zen Muck (A10) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A11) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Redox Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) Weland Hydrology must be present, unless disturbed or problematic. Itestrictive Layer (if present): Type: None Depth (inches): NA Jemarks: PEM POROLOGY Weland Hydrology Indicators Trimary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) Aquatic Fauna (B13) Water Table (A2) Aquatic Fauna (B13) Presence of Reduced Iron (C4) Sediment Deposits (B2) Ondized Rhizospheres on Living Roots (C3) Sediment Deposits (B3) Presence of Reduced Iron (C4) Sediment Deposits (B3) Presence of Reduced Iron (C4) Square Soli Cracks (B6) Drift Deposits (B3) Presence of Reduced Iron (C4) Square Soli Cracks (B6) Dryfsanow Water Table (C2) Crayfish Burrows (C8) Saturation (Nishle on Aerial Imagery (C7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): 6	ype: C=Concentration, D	=Depletion,	RM=Red	duced N	Matrix, CS=C	Covered	or Coated Sa	nd Grains		Location:	PL=Pore	Lining, M=Matrix
Histic Epipedon (A2) Black Histic (A3) Stripped Matrix (S6) Loamy Mucky Mineral (F1) Stratified Layers (A5) Depleted Matrix (F2) Depleted Below Dark Surface (A11) Sepleted Below Dark Surface (A11) Sandy Mucky Mineral (F1) Depleted Below Dark Surface (A11) Sandy Mucky Mineral (F1) Sandy Mucky Mineral (F1) Depleted Below Dark Surface (A11) Sepleted Below Dark Surface (A11) Sepleted Below Dark Surface (A12) Sepleted Below Dark Surface (A12) Sepleted Below Dark Surface (A12) Sepleted Below Dark Surface (F6) X Thick Dark Surface (A12) Sepleted Below Dark Surface (F6) X Thick Dark Surface (A12) Sepleted Below Dark Surface (F7) Redox Depressions (F8) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (If present): Type: None Depth (inches): NA Remarks: PEM PYPROLOGY Vetland Hydrology Indicators rimary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) True Aquatic Plants (B14) Dry-Season Water Table (C2) Crayfish Burrows (C8) Surface Soil Cracks (B6) Trinn Augustic Plants (B14) Dry-Season Water Table (C2) Crayfish Burrows (C8) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Iron Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Iron Deposits (B3) Presence of Reduced Iron (C4) Sunted or Stressed Plants (D1) Algal Mat or Crust (B4) Iron Deposits (B5) Iron Mineral (F1) Davide Rebissperses on Living Roots (C3) Sunted or Stressed Plants (D1) X FAC-Neutral Test (D5) Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) Wetland Hydrology Present? Ves No X Depth (inches): NA Water Table Present? Yes No X Depth (inches): NA Water Table Present? Yes No X Depth (inches): NA Water Table Present? Yes No X Depth (inches): 6	lydric Soil Indicators: (A	pplicable to	all LRRs	, unles	s otherwise	noted.)			Indicato	rs for Probler	matic Hyd	Iric Soils
Restrictive Layer (if present): Type: None Depth (inches): NA Remarks: PEM Remarks: P	Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4 Stratified Layers (A5) 2 cm Muck (A10) Depleted Below Darl X Thick Dark Surface (A	x Surface (A1	11)	Sa S	andy Redox tripped Mat pamy Muck pamy Gleyer epleted Ma edox Dark S epleted Dar	(S5) rix (S6) y Minera d Matrix trix (F3) urface (k Surface	al (F1) ((F2) F6) ce (F7)		Dar Iror Ver Oth Indicator wetland	k Surface (S7) n-Manganese y Shallow Dar eer (Explain in ers of hydroph hydrology mi	Masses (In the Surface Remarks Surface Remarks Surface	(TF12)) :ation and
Motion M	Type: None	-								<u> </u>		X No
Wetland Hydrology Indicators Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Water-Stained Leaves (B9) Aquatic Fauna (B13) Drainage Pattern (B10) X Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Algal Mat or Crust (B4) Iron Deposits (B5) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Water Table (Dservations: Surface Water Present? Yes No X Depth (inches): MA Water Table Present? Yes No X Depth (inches): MA Wetland Hydrology Present? Yes No X Depth (inches): MA Wetland Hydrology Present? Yes No X Depth (inches): MA Wetland Hydrology Present? Yes No X Depth (inches): MA Wetland Hydrology Present? Yes No X Depth (inches): MA Wetland Hydrology Present? Yes X No X Depth (inches): MA Wetland Hydrology Present? Yes X No X Depth (inches): MA Wetland Hydrology Present? Yes X No X Depth (inches): MA Wetland Hydrology Present? Yes X No X Depth (inches): Ma Wetland Hydrology Present? Yes X No X Depth (inches): Ma Wetland Hydrology Present? Yes X No X Depth (inches): Ma Wetland Hydrology Present? Yes X No X Depth (inches): Ma Wetland Hydrology Present? Yes X No X Depth (inches): Ma Wetland Hydrology Present? Yes X No X Depth (inches): Ma Wetland Hydrology Present? Yes X No X Depth (inches): Ma Wetland Hydrology Present? Yes X No X Depth (inches): Ma Wetland Hydrology Present? Yes X No X Depth (inches): Ma Wetland Hydrology Present? Yes X No X Depth (inches): Ma Wetland Hydrology Present? Yes X No X Depth (inches): Ma Wetland Hydrology Present? Yes X No X Depth (inches): Ma Wetland Hydrology Present? Yes X No X Depth (inches): Ma	Remarks: PEM							ı				
Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water (A1) Water Stained Leaves (B9) Aquatic Fauna (B13) Drainage Pattern (B10) Crayfish Burrows (C8) Saturation Visible on Aerial lmagery (C9) Staturation Visible on Aerial Imagery (C9) Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) Wetland Hydrology Present? Yes x No Saturation Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes x No Saturation Present? Yes No X Depth (inches): 6												
High Water Table (A2) X Saturation (A3) X Saturation (A3) X Saturation (A3) Water Marks (B1) Drift Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Water Table (Pa2) Aquatic Fauna (B13) True Aquatic Flants (B14) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Saturation Visible on Aerial Imagery (C9) Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X No Saturation Present? Yes No X Depth (inches): Saturation Present? Yes No Saturation Present? Yes Saturation Present?		ators										
X Saturation (A3)	Wetland Hydrology Indic		required	; check	all that app	ly)				Secondary Inc	dicators (2	2 or more required
Water Marks (B1)	Wetland Hydrology Indic Primary Indicators (minim		equired	; check			aves (B9)			•	-	•
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Saturation Reduction in Living Roots (C3) Saturation Visible on Aerial Imagery (B7) Saturation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Other (Explain in Remarks) Surface Water Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X No No No Depth (inches): Saturation Present? Yes No X Depth (inches): Depth (inches): Saturation Present? Yes No X Depth (inches): Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Living Roots (C3) Saturation Present Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Saturation Present Saturation Visible on Aerial Imagery (C4) Stunted or Stressed Plants (D1) Saturation Present Saturation Visible on Aerial Imagery (C4) Stunted or Stressed Plants (D1) Saturation Present Saturation Visible on Aerial Imagery (C4) Saturation Present Saturation Visible on Aerial Imagery (C7) Saturation Present Saturation Visible on Aerial Imagery (C7) Saturation Present Saturation Visible On Aerial Imagery (C7) Saturation Present Saturation Visible On Aerial Imagery (C4) Saturation	Netland Hydrology Indic Primary Indicators (minim Surface Water (A1)	num of one r	equired	; check	Water-Sta	ined Le	` '			Surface S	oil Cracks	(B6)
Drift Deposits (B3)	Wetland Hydrology Indic Primary Indicators (minim Surface Water (A1) High Water Table (A2	num of one r	equired	; check	Water-Sta Aquatic Fa	ined Lea auna (B1	13)			Surface Son Drainage	oil Cracks Pattern (I	(B6) B10)
Algal Mat or Crust (B4)	Wetland Hydrology Indic Primary Indicators (minim Surface Water (A1) High Water Table (A2 X Saturation (A3)	num of one r	required	; check	Water-Sta Aquatic Fa True Aqua	ined Lea auna (B1 atic Plan	13) ts (B14)		, , -	Surface Some Drainage Dry-Season	oil Cracks Pattern (I on Water	(B6) B10) Table (C2)
Iron Deposits (B5)	Wetland Hydrology Indic Primary Indicators (minim Surface Water (A1) High Water Table (A2 X Saturation (A3) Water Marks (B1)	num of one r	required	; check 	Water-Sta Aquatic Fa True Aqua Hydrogen	iined Lea auna (B1 atic Plan Sulfide	13) ts (B14) Odor (C1)	pots (C3)	- - -	Surface S Drainage Dry-Seaso Crayfish E	oil Cracks Pattern (I on Water Burrows (I	(B6) B10) Table (C2) C8)
Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes NoX Depth (inches): NA	Wetland Hydrology Indic Primary Indicators (minim Surface Water (A1) High Water Table (A2 X Saturation (A3) Water Marks (B1) Sediment Deposits (B	num of one r	required	; check 	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Rh	ined Lea auna (B1 atic Plan Sulfide nizospher	ts (B14) Odor (C1) res on Living Ro	pots (C3)	-	Surface Some Drainage Dry-Seaso Crayfish E	oil Cracks Pattern (I on Water Burrows (I Visible on	(B6) B10) Table (C2) C8) Aerial Imagery (C9)
Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes NoX Depth (inches):NA Water Table Present? Yes NoX Depth (inches):NA Saturation Present? Yes NoX Depth (inches):6	Wetland Hydrology Indic Primary Indicators (minim Surface Water (A1) High Water Table (A2 X Saturation (A3) Water Marks (B1) Sediment Deposits (B3)	num of one r) 2)	equired	; check 	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence	nined Lea auna (B1 atic Plan Sulfide nizospher of Redu	ts (B14) Odor (C1) res on Living Ro ced Iron (C4)		- - - -	Surface S Drainage Dry-Sease Crayfish E Saturation Stunted o	oil Cracks Pattern (I on Water Burrows (I Visible on or Stresse	(B6) B10) Table (C2) C8) Aerial Imagery (C9) d Plants (D1)
Surface Water Present? Yes No X Depth (inches): NA Water Table Present? Yes No X Depth (inches): NA Water Table Present? Yes No X Depth (inches): 6 Wetland Hydrology Present? Yes X No Saturation Present? Yes No X Depth (inches): 6	Wetland Hydrology Indic Primary Indicators (minim Surface Water (A1) High Water Table (A2 X Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5)	num of one r) 2) 1)		; check 	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence	ined Leauna (B1 auna (B1 atic Plan Sulfide nizospher of Redu	ts (B14) Odor (C1) res on Living Ro ced Iron (C4) ction in Tilled		- - - -	Surface S Drainage Dry-Sease Crayfish E Saturation Stunted c X Geomorp	oil Cracks Pattern (I on Water Burrows (I Visible on or Stressed	(B6) B10) Table (C2) C8) Aerial Imagery (C9) d Plants (D1) on (D2)
Surface Water Present? Yes No X Depth (inches): NA Water Table Present? Yes No X Depth (inches): NA Water Table Present? Yes No X Depth (inches): 6 Wetland Hydrology Present? Yes X No ST	Wetland Hydrology Indic Primary Indicators (minim Surface Water (A1) High Water Table (A2 X Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on A6	num of one r) 2) 1) erial Imagery (B7)	; check	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence Recent Iro Thin Muck	ined Leauna (B1 auna (B1 sulfide nizospher of Redu on Reduc & Surface Well Da	ts (B14) Odor (C1) res on Living Ro ced Iron (C4) ction in Tilled e (C7) ta (D9)		- - - -	Surface S Drainage Dry-Sease Crayfish E Saturation Stunted c X Geomorp	oil Cracks Pattern (I on Water Burrows (I Visible on or Stressed	(B6) B10) Table (C2) C8) Aerial Imagery (C9) d Plants (D1) on (D2)
Saturation Present? Yes No X Depth (inches): 6	Wetland Hydrology Indic Primary Indicators (minim Surface Water (A1) High Water Table (A2 X Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on A6 Sparsely Vegetated Con-	num of one r) 2) 1) erial Imagery (B7)	; check	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence Recent Iro Thin Muck	ined Leauna (B1 auna (B1 sulfide nizospher of Redu on Reduc & Surface Well Da	ts (B14) Odor (C1) res on Living Ro ced Iron (C4) ction in Tilled e (C7) ta (D9)		- - - -	Surface S Drainage Dry-Sease Crayfish E Saturation Stunted c X Geomorp	oil Cracks Pattern (I on Water Burrows (I Visible on or Stressed	(B6) B10) Table (C2) C8) Aerial Imagery (C9) d Plants (D1) on (D2)
Saturation Present? Yes No X Depth (inches): 6	Wetland Hydrology Indic Primary Indicators (minim Surface Water (A1) High Water Table (A2 X Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on A6 Sparsely Vegetated Con-	num of one r) 2) 4) erial Imagery (i	B7) B8)		Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence Recent Iro Thin Much Gauge or Other (Exp	ined Lea auna (Ba atic Plan Sulfide nizospher of Redu on Reduck Surface Well Da blain in I	ts (B14) Odor (C1) res on Living Rocced Iron (C4) ction in Tilled e (C7) ta (D9) Remarks)		- - - -	Surface S Drainage Dry-Sease Crayfish E Saturation Stunted c X Geomorp	oil Cracks Pattern (I on Water Burrows (I Visible on or Stressed	(B6) B10) Table (C2) C8) Aerial Imagery (C9) d Plants (D1) on (D2)
	Wetland Hydrology Indic Primary Indicators (minim Surface Water (A1) High Water Table (A2 X Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on A6 Sparsely Vegetated Con-	num of one r) 2) 4) erial Imagery (icave Surface (i	B7) B8)	x	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence Recent Iro Thin Muck Gauge or Other (Exp	atic Plan Sulfide Dizospher of Reduct on Reduct Surfact Well Da Dlain in I	ts (B14) Odor (C1) res on Living Ro ced Iron (C4) ction in Tilled e (C7) ta (D9) Remarks)	Soils (C6)	- - - -	Surface S Drainage Dry-Seaso Crayfish E Saturation Stunted o X Geomorp X FAC-Neut	oil Cracks Pattern (I on Water Burrows (I Visible on or Stressee thic Position and Test (I	(B6) B10) Table (C2) C8) Aerial Imagery (C9) d Plants (D1) on (D2) D5)

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC Investigator(s): E. Schwartz, P. Swartzinski Landform (hillslope, terrace, etc.): depressic Slope (%): <5% Lat: Soil Map Unit Name:	on		Sec	Stion, Tow elief (conc	tate: <u>SD</u> nship, Range: ave, convex, none	Sam	tum: NA	nt: DP0	
Are climatic/hydrologic conditions on the site ty Are Vegetation No Soil No or Hydro Are Vegetation No Soil No or Hydro	ology No ology No	significantly naturally pro	disturk oblema	bed? Ar	re "Normal Circum: needed, explain ir	n Remarks.)	nt? Yes	X	No
SUMMARY OF FINDINGS – Attach site	•		ng poi	int locat	tions, transects	, important	feautre	s, etc.	
Hydrophytic Vegetation Present? Yes _		X		1- 4b - C-					
Hydric Soil Present? Yes _					npled Area Wetland?	Yes	No X		
Wetland Hydrology Present? Yes	No	X					·		
Remarks: UPLAND									
VEGETATION – Use scientific names of	•								
<u>Tree Stratum</u> (Plot size: <u>30</u>)	Absolute % Cover	DominantS pecies?	Indica Status		Number of Doi That Are OBL,	minant Species		0	(A)
1					Total Number	of Dominant		2	
Sapling/Shrub Stratum (Plot size: 15)	_ = Total Co	ver		Species Across Percent of Don	ninant Species		2	(B)
					That Are OBL,	FACW, or FAC:		0.0%	(A/B)
1					Prevalence Inc	lex Worksheet	:		
		_ = Total Co	ver		Total % Cover	of:	Mult	iply by:	
Herb Stratum (Plot size: 5					OBL species	0%	x 1	0.0%	
1. Bromus inermis	65%	Υ	FAC		FACW species	10%	_ x 2 _	20.0%	
2. Phleum pratense	45%	Υ	FAC		FAC species	0%	x 3	0.0%	
3. Persicaria pensylvanica	10%	N	FAC	<u>W</u>	FACU species	110%	x 4	440.0%	
4					UPL species	0%	x 5	0.0%	_
	120%	= Total Co	ver		Column Totals	-		460%	(B)
Woody Vine Stratum (Plot size: 15	_)					ndex = B/A =		3.83	(5)
1.					Hydrophytic V	egetation Indic	cators:		<u> </u>
		= Total Co	ver		<u>N</u> 1 - Rapid T	est for Hydropl	nytic Veg	etation	
					N 2 - Domina	nce Test if >50	%		
					N 3 - Prevale	nce Index is ≤ 3	3.0		
					data in Rei		eperate s Vegetation land hydr	heet) on (Explain ology mus	n)
					Hydrophytic Vegetation Present?	Yes	No	x	
Remarks: UPLAND									

Profile Description: (Des	cribe to the	depth neede	d to docume	ent the indica	ator or cor	nfirm the a	bsence of indicator	
Depth M	atrix		F	Redox Featu	ıres			
(inches) Color:	%	6 C	Color:	%	Type:	Loc:	Texture:	Remarks:
0-16 10YR 2/	1 100	0%					Clay Loam	
Type: C=Concentration, E)=Depletion,	RM=Reduced	d Matrix, CS=	:Covered or (Coated Sar	nd Grains	Location: PL=	Pore Lining, M=Matrix
Hydric Soil Indicators: (A	ррисавіе то	ali LKKS, unie					Indicators for Problemat	•
Histosol (A1)				ed Matrix (S4)		Coast Prairie Redoc ((A16)
Histic Epipedon (A2) Black Histic (A3)			Sandy Redo				Dark Surface (S7)	ococ (F13)
Hydrogen Sulfide (A.	4)		Stripped Ma	ky Mineral (F	:1\		Iron-Manganese Ma Very Shallow Dark St	
Stratified Layers (A5			-	ed Matrix (F2			Other (Explain in Re	
2 cm Muck (A10)	,		Depleted M		-,			
Depleted Below Dar	k Surface (A:	11)	Redox Dark					
X Thick Dark Surface (='	rk Surface (F	7)		Indicators of hydrophytic	vegetation and
Sandy Mucky Miner	al (S1)		Redox Depr	essions (F8)			wetland hydrology must l disturbed or problematic	be present, unless
Restrictive Layer (if pres	ent):							
Type: None							Hydric Soil Present?	res X No
Depth (inches): N	4						•	
Remarks:								
HYDROLOGY								
Wetland Hydrology Indic	ators							
Primary Indicators (minin	านm of one r	equired; che					•	tors (2 or more required)
Surface Water (A1)		=		ained Leave	s (B9)		Surface Soil (` '
High Water Table (A2)			Fauna (B13)	>		Drainage Pat	
Saturation (A3)		=		iatic Plants (I				Vater Table (C2)
Water Marks (B1) Sediment Deposits (E	(2)	=		n Sulfide Odo Rhizospheres o	. ,	ots (C3)	Crayfish Burr	ble on Aerial Imagery (C9)
Drift Deposits (B3)	2)	=		of Reduced		010 (00)		ressed Plants (D1)
Algal Mat or Crust (B	4)	=		on Reductio	` ,	Soils (C6)	Geomorphic	, ,
Iron Deposits (B5)	•	-		ck Surface (C		` ,	FAC-Neutral	• •
Inundation Visible on A	erial Imagery (B7)	Gauge o	r Well Data (I	D9)			
Sparsely Vegetated Con	cave Surface (B8) _	Other (E	xplain in Rem	narks)			
Field Observations: Surface Water Present?	Voc	No V	Donth /:-	nches). N/	,			
		No X	 '	_				
Water Table Present?		NoX_		_		Wetland	Hydrology Present?	res No X
Saturation Present? (includes capillary fringe)		No X					available.	
Describe Recorded Data	stream guag	ge, monitoring	g well, aerial	photos, prev	vious inspe	ections), if a	available:	
Remarks: NO HYDROLO)GY							

Project/Site: Tatanka Ridge Wind Project		City/Cour	ntv: Dai	uel Count	v	Samn	ling Date:	8/3/2) 019
Applicant/Owner: Buffalo Ridge III, LLC		City/Cour	ity. Dei		ate: SD		ling Point:	-	
Investigator(s): E. Schwartz, P. Swartzinski			Sect		nship, Range:	Sampl	ing Foint.	DF 0-	+/
Landform (hillslope, terrace, etc.): depression	nn				ave, convex, none)	: Convex			
Slope (%): <5% Lat:	7 11	_			ive, convex, none,		m: NAD8	3	
Soil Map Unit Name:			201181			WI classification:	-		
Are climatic/hydrologic conditions on the site ty	pical for this	time of year?	? Yes	Х	_	io, explain in Rer			
Are Vegetation No , Soil No , or Hydro			_				•	Х	No
Are Vegetation No , Soil No , or Hydro					needed, explain in				
SUMMARY OF FINDINGS – Attach site							autres.	etc.	
Hydrophytic Vegetation Present? Yes	X No			iii iocati	ions, transcets,	portant re	uuti es,		
_			1	s the Sam	pled Area				
				within a V		Yes X N	٥	_	
Wetland Hydrology Present? Yes _	X No								
Remarks: PEM									
VEGETATION – Use scientific names of	plants								
T 61 1 (51 1 1 1 5 1 1 1 1 1 1 1 1 1 1 1 1	Absolute	DominantS	Indicat	tor	Dominance Tes	st Worksheet:	-		
<u>Tree Stratum</u> (Plot size: <u>30</u>)	% Cover	pecies?	Status		Number of Dor	ninant Species			
					That Are OBL, F	•		4	(A)
1					Total Number of				
		= Total Co	ver		Species Across			4	(B)
Sapling/Shrub Stratum (Plot size: 15)	_			Percent of Dom That Are OBL, F	•	100	0.0%	(A/B)
1.									
<u></u>					Prevalence Ind	ex Worksheet:			
	-	= Total Co	ver		Total % Cover of	of:	Multipl	y by:	
Herb Stratum (Plot size: 5					OBL species	25%	x 1	25.0%	<u> </u>
1. Poa pratensis	30%	Υ	FAC		FACW species	50%	x 2 1	100.0%	
2. Spartina pectinata	25%	Υ	FACV	V	FAC species	30%	x 3	90.0%	_
3. Phalaris arundinacea	25%	Υ	FACV	V	· ·				_
4. Schoenoplectus acutus	25%	Υ	OBL	<u>-</u>	FACU species	0%	x 4	0.0%	_
5.					UPL species	0%	x 5	0.0%	_
	105%	= Total Co	ver		Column Totals:	105.0%	(A)	215%	(B)
Woody Vine Stratum (Plot size: 15	1		• • •		Prevalence II	ndex = B/A =	2.0	05	
WOODY VIIIC Stratam (1100 3120. 15	,				Hydronhytic V	egetation Indica	tors:		=
1.									
		T-t-LC-			· ·	est for Hydrophy	· ·	ation	
	-	= Total Co	ver		Y 2 - Domina	nce Test if >50%			
					Y 3 - Prevale	nce Index is ≤ 3.0)		
					N 4 - Morpho	logical Adaptation	ons (Provi	de supp	orting
						narks or on a sep			
						c Hydrophytic Ve	_		-
					Indicators of hydr present, unless di			ogy mus	it be
						•			
					Hydrophytic				
					Vegetation Present?	Yes X	No		
Remarks: PEM					1				

Profile Description: (Desc	ribe to the	depth n	eeded t	o document the i	indicator or co	nfirm the a	bsence of indicator	
Depth Ma	ntrix			Redox F	eatures			
(inches) Color:	9	%	Cole	or: %	Type:	Loc:	Texture:	Remarks:
0-16 10YR 2/2	10	0%					Clay Loam	
Type: C=Concentration, D	=Depletion,	, RM=Red	duced M	Matrix, CS=Covere	d or Coated Sa	nd Grains	Location:	PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (Ap							Indicators for Probler	
Histosol (A1)	piicabie to	an Lina		indy Gleyed Matri			Coast Prairie Red	•
Histic Epipedon (A2)				indy Gleyed Matri indy Redox (S5)	IX (34)		Dark Surface (S7)	` '
Black Histic (A3)				ripped Matrix (S6)		Iron-Manganese	
Hydrogen Sulfide (A4	.)			amy Mucky Mine			Very Shallow Dar	
Stratified Layers (A5)	,			amy Gleyed Matr			Other (Explain in	
2 cm Muck (A10)				epleted Matrix (F3				·
Depleted Below Dark	Surface (A	11)	Re	edox Dark Surface	(F6)			
X Thick Dark Surface (A	12)		De	epleted Dark Surfa	ace (F7)		Indicators of hydroph	ytic vegetation and
Sandy Mucky Minera	l (S1)		Re	edox Depressions	(F8)		wetland hydrology mudisturbed or problema	ust be present, unless
Restrictive Layer (if prese	nt):						· · · · · · · · · · · · · · · · · · ·	
Type: None							Hydric Soil Present?	Yes X No
Depth (inches): NA	·						,	
Remarks: PEM						1		
HYDROLOGY								
Wetland Hydrology Indica	ators							
Primary Indicators (minim	um of one	required	; check a	all that apply)			Secondary Inc	dicators (2 or more required)
Surface Water (A1)				_Water-Stained L	eaves (B9)		Surface S	oil Cracks (B6)
High Water Table (A2)				Aquatic Fauna (E			_	Pattern (B10)
Saturation (A3)				_True Aquatic Pla				on Water Table (C2)
Water Marks (B1)	_,			_Hydrogen Sulfide		. (60)		Burrows (C8)
Sediment Deposits (B3)	2)			Oxidized Rhizosph		oots (C3)		Visible on Aerial Imagery (C9)
Drift Deposits (B3) Algal Mat or Crust (B4	1			_Presence of Red Recent Iron Red	` ,	Soils (C6)		r Stressed Plants (D1) hic Position (D2)
Iron Deposits (B5)	,			Thin Muck Surfa		30113 (CO)	X FAC-Neut	
X Inundation Visible on Ae	rial Imagery	(B7)		Gauge or Well D	` '			101 1636 (D3)
Sparsely Vegetated Conc	ave Surface	(B8)		Other (Explain in				
Field Observations:								
Surface Water Present?	Yes			Depth (inches):	NA			
Water Table Present?	·	No		Depth (inches):	NA	Wetland	d Hydrology Present?	Yes X No
Saturation Present? (includes capillary fringe)	Yes			Depth (inches):	NA			
Describe Recorded Data (s	tream gua	ge, moni	toring w	vell, aerial photos	, previous insp	ections), if a	available:	
Remarks:								

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC		City/Cour	nty: <u>De</u>		nty State: SD		npling Da	-	
Investigator(s): E. Schwartz, P. Swartzinski			Sec	ction, To	wnship, Range:		,,		
Landform (hillslope, terrace, etc.): depression	n	Į	Local re	elief (con	icave, convex, none	e): Linear S	оре		
Slope (%): <5% Lat:			Long:			Da	tum: NA	D83	
Soil Map Unit Name:						NWI classification	on:		
Are climatic/hydrologic conditions on the site ty	pical for this	time of year?	? Yes	X	No(if	no, explain in F	Remarks.)		
Are Vegetation No , Soil No , or Hydro					Are "Normal Circum	istances" prese	nt? Yes	X	No
Are Vegetation <u>No</u> , Soil <u>No</u> , or Hydro	ology No	naturally pro	oblema	atic? (if needed, explain i	n Remarks.)			
SUMMARY OF FINDINGS – Attach site	map show	ing sampli	ng po	int loca	ations, transects	s, important	feautre	s, etc.	
	•	X			·	<u> </u>			
				Is the Sa	ampled Area				
_				within a	Wetland?	Yes	No X	· ·	
	No	X							
Remarks: Upland									
VEGETATION – Use scientific names of	plants								
	Absolute	DominantS	Indica	ator	Dominance Te	est Worksheet			
<u>Tree Stratum</u> (Plot size: <u>30</u>)	% Cover	pecies?	Statu	S		minant Specie			
						FACW, or FAC:		1	(A)
1.					Total Number		-		
		= Total Co	ver		Species Across			2	(B)
Sapling/Shrub Stratum (Plot size: 15)	_				minant Species FACW, or FAC:		50.0%	(A/B)
1.					Duayalanaa In	day Madrahaa	•-		
		= Total Co	ver			dex Workshee			
Hards Christians (Blat sizes 5		_ = 10tal co	VCI		Total % Cover	of:	Mult	tiply by:	
Herb Stratum (Plot size: 5)					OBL species	0%	x 1	0.0%	_
Phleum pratense	75%	Υ	FAC		FACW species	5%	x 2	10.0%	
2. Poa pratensis	35%	Y	FA		FAC species	35%	x 3	105.0%	
3. Agrostis stolonifera	5%	N	FAC	·W	FACU species	75%	x 4	300.0%	_
4					UPL species	0%	— ^ · - x 5	0.0%	
	115%	= Total Co	ver		·				
Woody Vine Stratum (Plot size: 15)				Column Totals	115.0%	(A)	415%	(B)
TVOORY VIIIC SECURITY (1100 SEC. 12	_'				Prevalence	Index = B/A =		3.61	
1.					Hydrophytic V	/egetation Indi	cators:		
		= Total Co	ver		N 1 - Rapid 7	Test for Hydrop	hytic Veg	etation	
		_			N 2 - Domin	ance Test if >50	,)%		
						ence Index is ≤			
						ological Adapta		ovide sunn	orting
					data in Re	marks or on a stic Hydrophytic	seperate :	sheet)	
					Indicators of hyd		_		
					present, unless o	disturbed or pro	oblematio		
					Hydrophytic Vegetation	Yes	No	x	
					Present?				
Remarks: Upland									

Color: % Color: % Type: Loc: Texture: Remarks: 0-16 10YR 2/1 100% Clay Loam Location: PL=Pore Lining, M=Matrix Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Gleyed Matrix (S4) Coast Prairie Redoc (A16) Histosol (A2) Sandy Redox (S5) Dark Surface (S7) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Very Shallow Dark Surface (F12) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Redox Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) Estrictive Layer (if present): Type: None Depth (inches): NA emarks:	rofile Description: (De	scribe to the	р								
O-16 10YR 2/1 100% Clay Loum Clay Loum Clay Loum Clay Loum Clay Loum Clay Loum Location: PL=Pore Lining, M=Matrix Location: Loca	(:l)							Toyturo		В	omarks
yeps: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)				Color:		Type:	Loc:			, n	emarks.
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histors (Applicable to all LRRs, unless otherwise noted.) Loamy Mucky Mineral (F1) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A12) Depleted Dark Surface (F7) Redox Depressions (F8) Trick Dark Surface (A12) Depleted Dark Surface (F7) Redox Depressions (F8) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. **Surface (Applicable to a problematic disturbed or problematic.** **Problematic Layer (If present): Type: None Depth (inches): NA **Wetland Hydrology Indicators (ininary Indicators (minimum of one required): Surface Water (A1) Aquatic Fauna (B13) Depleted Dark Surface (B9) Surface Soil Cracks (B6) Dariage Patient (B10) Depleted Dark (B10) Depleted Dark Surface (B9) Aquatic Fauna (B13) Depleted Dark Surface (B10) Depleted Dark Surf	0-16 10YR 2	/1 100	0%					Clay Loam	l		
Histosol (A1) Sandy Gieyed Matrix (S4) Coast Prairie Redoc (A16) Histic Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) Black Histic (A3) Stripped Matrix (S6) Iron-Manganese Masses (F12) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Very Shallow Dark Surface (TF12) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) X Thick Dark Surface (A12) Depleted Dark Surface (F7) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. **Strictive Layer (if present):** Type: None Depth (inches): NA **marks:** **POROLOGY** **PO	ype: C=Concentration,	D=Depletion,	RM=Red	uced Matri	x, CS=Covere	d or Coated Sa	nd Grains	Loca	ation: F	L=Pore Lir	ning, M=Matrix
Histic Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) Black Histic (A3) Stripped Matrix (S6) Iron-Manganese Masses (F12) Hydrogen Surfide (A4) Loamy Mucky Mineral (F1) Very Shallow Dark Surface (TF12) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Other (Explain in Remarks) Z mm Muck (A10) Depleted Bark Surface (A11) Redox Dark Surface (F6) X Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. setrictive Layer (if present): Type: None Depth (inches): NA emarks: YOROLOGY rettand Hydrology Indicators rimary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) Surface (F7) High Water Table (A2) Aquatic Fauna (B13) Sufface Water (A1) Drainage Pattern (B10) Drainage Pattern (B10) Dry-Season Water Table (C2) Dry-Season Water Table (C2) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation (A3) Presence (Reduced Iron (C4) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation (V5) Saturation (V5) Saturation (V5) Saturation (V5) Saturation (V5) Sparsely Vegetated Concave Surface (R8) Other (Explain in Remarks) Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA	ydric Soil Indicators: (A	Applicable to	all LRRs,	unless oth	erwise noted	l.)		Indicators for Pr	roblem	atic Hydri	c Soils
Sandy Mucky Mineral (S1)Redox Depressions (F8) wetland hydrology must be present, unless disturbed or problematic. Poper	Histic Epipedon (A2 Black Histic (A3) Hydrogen Sulfide (A Stratified Layers (A: 2 cm Muck (A10) Depleted Below Da	.4) 5) rk Surface (A1	- - - - 11) _	Sandy Strippe Loamy Loamy Deplet Redox	Redox (S5) ed Matrix (S6) Mucky Mine Gleyed Matrix ed Matrix (F3 Dark Surface) ral (F1) ix (F2) 3) (F6)		Dark Surfac	ce (S7) anese N ow Dark lain in F	Masses (F1 Surface (T Remarks)	ΓF12)
Type: None Depth (inches): NA wetland Hydric Soil Present? Yes X No PVROLOGY Vetland Hydrology Indicators rimary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Drift Deposits (B2) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B5) Inim Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA			=					wetland hydrolo	gy mus	st be prese	
POROLOGY Vetland Hydrology Indicators rimary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6) High Water Table (A2) Aquatic Panua (B13) Drainage Pattern (B10) Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Iron Deposits (B5) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Vater Table Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA No X Depth (inches): NA No X Depth (inches): NA No NA No NA No NA NO NA NA NO NA NA NA NA NA	Type: None			_				Hydric Soil Preso	ent?	Yes >	(No
YDROLOGY Vertland Hydrology Indicators Finary Indicators (minimum of one required; check all that apply) Surface Water (A1) Surface Water (A2) High Water Table (A2) Saturation (A3) True Aquatic Plants (B13) Sediment Deposits (B2) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Sediment Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Iron Deposits (B5) Iron Deposits (B5) Iron Deposits (B5) Sparsely Vegetated Concave Surface (B8) Selid Observations: Urface Water Present? Yes No X Depth (inches): NA Wetland Hydrology Indicators Secondary Indicators (2 or more required) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Drainage Pattern (B10) Surface Soil Cracks (B6) Drainage Pattern (B10) Surface Soil Cracks (B6) Drainage Pattern (B10) Drainage Pattern (B10) Saturation Prissent? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X No X Depth (inches): NA	Depth (inches): N	Α		_							
rimary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Drainage Pattern (B10) Dray-Season Water Table (C2) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Vater Table (Present? Ves No X Depth (inches): Vater Table Present? Yes No X Depth (inches): Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Each Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) FAC-Neutral Test (D5) FAC-Neutral Test (D5) Other (Explain in Remarks) Face Water Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No No No No No No No No No N											
High Water Table (A2) Saturation (A3) Aquatic Fauna (B13) True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: urface Water Present? Ves No X Depth (inches): NA Aquatic Fauna (B13) Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Saturation Visible on Aerial Imagery (C9) Facent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) FAC-Neutral Test (D5) Other (Explain in Remarks) FAC-Neutral Test (D5) Other (Explain in Remarks) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA	YDROLOGY Vetland Hydrology Indi	cators									
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) True Aquatic Plants (B14) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Thin Muck Surface (C7) FAC-Neutral Test (D5) Gauge or Well Data (D9) Other (Explain in Remarks) Field Observations: urface Water Present? Yes No X Depth (inches): NA Vater Table Present? Yes No X Depth (inches): NA vater Table Present? Yes No X Depth (inches): NA Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) FAC-Neutral Test (D5) Other (Explain in Remarks) Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA No X Depth (inches): NA	Vetland Hydrology Indi		required;	check all th	nat apply)			Seconda	ary Indi	cators (2 c	or more required
Water Marks (B1)	/etland Hydrology Ind rimary Indicators (mini Surface Water (A1)	mum of one r	equired;			eaves (B9)					
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Peth Deposits (B8) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5) Gauge or Well Data (D9) Other (Explain in Remarks) Peth Observations: Urface Water Present? Yes No X Depth (inches): NA Vater Table Present? Yes No X Depth (inches): NA Paturation Present? Yes No X Depth (inches): NA Paturation Present? Yes No X Depth (inches): NA Peth Inches (C7) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) FAC-Neutral Test (D5) FAC-N	/etland Hydrology Indi rimary Indicators (mini Surface Water (A1) High Water Table (A	mum of one r	equired;	Wa Aqı	ter-Stained L uatic Fauna (E	313)		Surf Drai	face So inage P	il Cracks (E attern (B1	36) .0)
Drift Deposits (B3)	Vetland Hydrology Indi rimary Indicators (mini Surface Water (A1) High Water Table (A Saturation (A3)	mum of one r	equired;	— Wa Aqı — Tru	ter-Stained L uatic Fauna (E e Aquatic Pla	313) nts (B14)		Surf Drai Dry	face So inage P -Seasor	il Cracks (E attern (B1 n Water Ta	36) 0) able (C2)
Algal Mat or Crust (B4)	Vetland Hydrology Indi rimary Indicators (mini Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1)	mum of one r 2)	required;	—_Wa Aqu Tru Hyo	ter-Stained L uatic Fauna (E e Aquatic Pla drogen Sulfid	313) nts (B14) e Odor (C1)	note (C3)	Surf Drai Dry. Cray	face So inage P -Seasor yfish Bu	il Cracks (E attern (B1 n Water Ta ırrows (C8	36) .0) able (C2)
Iron Deposits (B5)	Vetland Hydrology Indi rimary Indicators (mini Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (mum of one r 2)	equired;	Wa Aqı Tru Hyo Oxio	ter-Stained L uatic Fauna (E e Aquatic Pla drogen Sulfid dized Rhizosph	313) nts (B14) e Odor (C1) eres on Living Ro	oots (C3)	Surf Drai Dry- Crai Satu	face So inage P -Seasor yfish Bu uration V	il Cracks (E attern (B1 n Water Ta ırrows (C8 'isible on Ae	36) .0) able (C2) .) erial Imagery (C9)
Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) ield Observations: urface Water Present? Yes No _X Depth (inches): NA Vater Table Present? Yes No _X Depth (inches): NA urface Water Present? Yes No _X Depth (inches): NA waturation Present? Yes No _X Depth (inches): NA ncludes capillary fringe)	Vetland Hydrology Indi rimary Indicators (mini Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (Drift Deposits (B3)	mum of one r 2) B2)	required;	Wa Aqu Tru Hyo Oxio	ter-Stained L uatic Fauna (E e Aquatic Pla drogen Sulfid dized Rhizosph sence of Red	313) nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4)		Surf Drai Dry- Cray Satu Stur	face So inage P -Seasor yfish Bu Iration V nted or	il Cracks (E attern (B1 n Water Ta ırrows (C8 'isible on Ae Stressed I	36) .0) able (C2) .) erial Imagery (C9) Plants (D1)
urface Water Present? Yes No _X Depth (inches): NA Water Table Present? Yes No _X Depth (inches): NA Wetland Hydrology Present? Yes No _X Depth (inches): NA NA No _X No _X NA	Vetland Hydrology Indi rimary Indicators (mini Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (Drift Deposits (B3) Algal Mat or Crust (8	mum of one r 2) B2)	equired;	Wa Aqu Tru Hyo Oxid Pre	ter-Stained L uatic Fauna (B e Aquatic Pla drogen Sulfid dized Rhizosph sence of Red cent Iron Red	313) nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled		Surf Drai Dry- Cray Satu Stur	face So inage P -Seasor yfish Bu uration V nted or omorph	il Cracks (E attern (B1 n Water Ta urrows (C8 visible on Ae Stressed F ic Position	36) 0) able (C2) c) erial Imagery (C9) Plants (D1) 1 (D2)
urface Water Present? Yes No X Depth (inches): NA Water Table Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA No X Depth (inches):	Vetland Hydrology Indi rimary Indicators (mini Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Inundation Visible on A	mum of one r 2) B2) 84) serial Imagery (B7)	WaAquTruHyoOxioPreRecThiGao	ter-Stained L uatic Fauna (E e Aquatic Pla drogen Sulfid dized Rhizosph sence of Red cent Iron Red n Muck Surfa uge or Well D	313) nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9)		Surf Drai Dry- Cray Satu Stur	face So inage P -Seasor yfish Bu uration V nted or omorph	il Cracks (E attern (B1 n Water Ta urrows (C8 visible on Ae Stressed F ic Position	36) 0) able (C2) c) erial Imagery (C9) Plants (D1) 1 (D2)
Vater Table Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA ncludes capillary fringe)	Vetland Hydrology Indi rimary Indicators (mini Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (Drift Deposits (B3) Algal Mat or Crust (I Iron Deposits (B5) Inundation Visible on A Sparsely Vegetated Co	mum of one r 2) B2) 84) serial Imagery (B7)	WaAquTruHyoOxioPreRecThiGao	ter-Stained L uatic Fauna (E e Aquatic Pla drogen Sulfid dized Rhizosph sence of Red cent Iron Red n Muck Surfa uge or Well D	313) nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9)		Surf Drai Dry- Cray Satu Stur	face So inage P -Seasor yfish Bu uration V nted or omorph	il Cracks (E attern (B1 n Water Ta urrows (C8 visible on Ae Stressed F ic Position	36) 0) able (C2) c) erial Imagery (C9) Plants (D1) 1 (D2)
aturation Present? Yes No X Depth (inches): NA noludes capillary fringe)	Vetland Hydrology Indi rimary Indicators (mini Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (Drift Deposits (B3) Algal Mat or Crust (E Iron Deposits (B5) Inundation Visible on A Sparsely Vegetated Co	mum of one r 2) B2) B4) Berial Imagery (Incave Surface (B7) B8)	WaAquTruHydOxidPreRecThiGauOth	ter-Stained L uatic Fauna (E e Aquatic Pla drogen Sulfid dized Rhizosph esence of Red cent Iron Red n Muck Surfa uge or Well D ner (Explain ir	a13) nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9) n Remarks)		Surf Drai Dry- Cray Satu Stur	face So inage P -Seasor yfish Bu uration V nted or omorph	il Cracks (E attern (B1 n Water Ta urrows (C8 visible on Ae Stressed F ic Position	36) 0) able (C2) c) erial Imagery (C9) Plants (D1) 1 (D2)
ncludes capillary fringe)	Vetland Hydrology Indi rimary Indicators (mini Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Inundation Visible on A Sparsely Vegetated Co	mum of one r 2) B2) B4) Berial Imagery (Incave Surface (B7) B8) No	Wa Aqu Tru Hyo Oxio Pre Rec Oth	ter-Stained L uatic Fauna (E e Aquatic Pla drogen Sulfid dized Rhizosph esence of Red cent Iron Red n Muck Surfa uge or Well D ner (Explain in	nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9) n Remarks)	Soils (C6)	Surf Drai Dry: Cray Satu Stur Geo FAC	face So inage P -Seasor yfish Bu ration V nted or omorph C-Neutra	il Cracks (E attern (B1 n Water Ta urrows (C8 fisible on Ae Stressed I ic Position al Test (D5	36) 0) able (C2) c) erial Imagery (C9) Plants (D1) 1 (D2)
	Vetland Hydrology Indirimary Indicators (mini Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Inundation Visible on A Sparsely Vegetated Co	mum of one r 2) B2) S4) Serial Imagery (Surface (Yes Yes	B7) B8) No No	Wa Aqu Tru Hyo Oxio Pre Rec Thi Gau Oth	ter-Stained L uatic Fauna (E e Aquatic Pla drogen Sulfid- dized Rhizosph esence of Red cent Iron Red n Muck Surfa uge or Well D ner (Explain ir	nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9) n Remarks)	Soils (C6)	Surf Drai Dry: Cray Satu Stur Geo FAC	face So inage P -Seasor yfish Bu ration V nted or omorph C-Neutra	il Cracks (E attern (B1 n Water Ta urrows (C8 fisible on Ae Stressed I ic Position al Test (D5	36) 0) able (C2) c) erial Imagery (C9) Plants (D1) 1 (D2)

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC Investigator(s): E. Schwartz, P. Swartzinski Landform (hillslope, terrace, etc.): depression Slope (%): <5% Lat: Soil Map Unit Name: Are climatic/hydrologic conditions on the site ty Are Vegetation No , Soil No , or Hydro Are Vegetation No , Soil No , or Hydro SUMMARY OF FINDINGS – Attach site is Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes Wetland Hydrology Present? Yes	pical for this ology No ology No map show	time of year? significantly naturally pro ing sampli	Sec Local re Long: Yes disturb oblema	Stition, Townselief (concarelle (concarell	ate: SD aship, Range: ave, convex, none) No (if ne "Normal Circums needed, explain in ions, transects,	Sampl : Convex Datur WI classification: o, explain in Ren tances" present	m: NAD83 narks.) Yes X autres, etc.	
Remarks: PEM VEGETATION – Use scientific names of Tree Stratum (Plot size: 30)	plants Absolute % Cover	DominantS pecies?	Indica Status		Dominance Tes			
1. Sapling/Shrub Stratum (Plot size: 15)	= Total Co	ver		That Are OBL, F Total Number of Species Across Percent of Dom That Are OBL, F	of Dominant All Strata: ninant Species	2 2 100.0%	(A) (B) (A/B)
1. Herb Stratum (Plot size: 5) 1. Carex nebrascensis 2. Spartina pectinata 3. Panicum virgatum 4. Woody Vine Stratum (Plot size: 15	65% 35% 15% 115%	= Total Cov	OBI FAC	W	Prevalence Ind Total % Cover of OBL species FACW species FAC species FACU species UPL species Column Totals: Prevalence In	65% 35% 15% 0% 0% 115.0%	Multiply by: x 1 65.0 x 2 70.0 x 3 45.0 x 4 0.09 x 5 0.09 (A) 180 1.57	9% 9% 9% %
1.		_ = Total Co	ver		Hydrophytic Ve Y 1 - Rapid Te Y 2 - Domina Y 3 - Prevaler Y 4 - Morpho data in Ren	egetation Indicatest for Hydrophy nce Test if >50% nce Index is ≤ 3.0 logical Adaptationarks or on a sep c Hydrophytic Ve ic soil and wetlan	tors: tic Vegetation ons (Provide siverate sheet) egetation (Exp and hydrology i	upporting plain)
Remarks: PEM					Hydrophytic Vegetation Present?	Yes X	No	

Profile Description: (Desc	ribe to the	depth n	eeded to	o document the i	indicator or co	nfirm the a	bsence of indicator	
Depth Ma	atrix			Redox F	eatures			
(inches) Color:	9/	6	Colo	or: %	Type:	Loc:	Texture:	Remarks:
0-16 10YR 2/2	10	0%					Clay Loam	
Type: C=Concentration, D	=Depletion,	, RM=Red	duced M	latrix, CS=Covere	d or Coated Sa	nd Grains	Location:	PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (Ap							Indicators for Probler	
	plicable to	all Livins						•
Histosol (A1) Histic Epipedon (A2)				ndy Gleyed Matri ndy Redox (S5)	ix (54)		Coast Prairie Red Dark Surface (S7)	` '
Black Histic (A3)				ripped Matrix (S6))		Iron-Manganese	
Hydrogen Sulfide (A4	.)			amy Mucky Mine			Very Shallow Dar	
Stratified Layers (A5)				amy Gleyed Matr			Other (Explain in	
2 cm Muck (A10)				pleted Matrix (F3				·
Depleted Below Dark	Surface (A	11)	Re	dox Dark Surface	(F6)			
X Thick Dark Surface (A	.12)		De	pleted Dark Surfa	ace (F7)		Indicators of hydroph	ytic vegetation and
Sandy Mucky Minera	l (S1)		Re	dox Depressions	(F8)		wetland hydrology modisturbed or problems	
Restrictive Layer (if prese	nt):							
Type: None							Hydric Soil Present?	Yes X No
Depth (inches): NA							,	
Remarks: PEM								
HYDROLOGY								
Wetland Hydrology Indica	ators							
Primary Indicators (minim	um of one	required	; check a	all that apply)			Secondary Inc	dicators (2 or more required)
Surface Water (A1)				Water-Stained L	eaves (B9)		Surface S	oil Cracks (B6)
High Water Table (A2)	ı			Aquatic Fauna (E	313)		•	Pattern (B10)
Saturation (A3)				_True Aquatic Pla				on Water Table (C2)
Water Marks (B1)	_,			Hydrogen Sulfide		. (62)		Burrows (C8)
Sediment Deposits (B3)	2)			Oxidized Rhizosph	_	oots (C3)		Visible on Aerial Imagery (C9)
Drift Deposits (B3) Algal Mat or Crust (B4	1		-	Presence of Red Recent Iron Red	, ,	Soils (C6)		or Stressed Plants (D1) hic Position (D2)
Iron Deposits (B5)	,		-	Thin Muck Surfa		30113 (CO)	X FAC-Neut	
X Inundation Visible on Ae	rial Imagery	(B7)	-	Gauge or Well D	` '			. ui 1630 (D3)
Sparsely Vegetated Cond	ave Surface ((B8)		Other (Explain in				
Field Observations:								
Surface Water Present?	Yes			Depth (inches):	NA			
Water Table Present?	Yes			Depth (inches):	NA	Wetland	d Hydrology Present?	Yes X No
Saturation Present?	Yes	No _	X	Depth (inches):	NA			
(includes capillary fringe) Describe Recorded Data (s	tream gua	ge monit	toring w	ell aerial nhotos	nrevious insh	ections) if	availahle:	
<u>_</u>	LI Calli gud	56, 1110111	rornig W	en, aeriai priotos	, previous irisp	ections), II o	availabic.	
Remarks: PEM								

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC Investigator(s): E. Schwartz, P. Swartzinski Landform (hillslope, terrace, etc.): depression	ant/Owner: Buffalo Ridge III, LLC gator(s): E. Schwartz, P. Swartzinski rm (hillslope, terrace, etc.): depression				oty State: <u>SD</u> vnship, Range: cave, convex, none	Sam	npling Dan	-	
Soil Map Unit Name: Are climatic/hydrologic conditions on the site ty		time of year?	? Yes	Х	No(if	NWI classification no, explain in R	emarks.)		
Are Vegetation No , Soil No , or Hydro	ology No	naturally pro	oblema	atic? (i	f needed, explain i	n Remarks.)			No
SUMMARY OF FINDINGS – Attach site			ng po	int loca	tions, transects	s, important	feautre	s, etc.	
Hydrophytic Vegetation Present? Yes _	No.	X							
Hydric Soil Present? Yes _	X No				mpled Area	Yes	No X		
Wetland Hydrology Present? Yes _	No	X		within a	Wetland?				
Remarks: UPLAND									
VEGETATION – Use scientific names of	plants								
<u>Tree Stratum</u> (Plot size: <u>30</u>)	Absolute % Cover	DominantS pecies?	Indica Status		Number of Do	est Worksheet: minant Species FACW, or FAC:		0	(A)
1		= Total Co			Total Number Species Across	of Dominant			(B)
Sapling/Shrub Stratum (Plot size: 15)				Percent of Doi	minant Species FACW, or FAC:		0.0%	(A/B)
1					Prevalence In	dex Worksheet	:		
		_ = Total Co	ver		Total % Cover	of:	Mult	iply by:	
Herb Stratum (Plot size: 515)					OBL species	0%	x 1	0.0%	_
1. Phleum pratense	85%	Υ	FAC	CU	FACW species	0%	x 2	0.0%	
2. Poa pratensis	20%	<u>N</u>	FAC		FAC species	35%	x 3	105.0%	
3. Panicum virgatum	15%	N	FAC	<u>C</u>	FACU species	85%	x 4	340.0%	
4					UPL species	0%	x 5	0.0%	_
	120%	= Total Co	ver		Column Totals	: 120.0%	(A)	445%	(B)
Woody Vine Stratum (Plot size:	_)					Index = B/A =	(' ', _	3.71	_ (5)
1.					Hydrophytic V	egetation Indi	cators:		
		= Total Co	ver		<u>N</u> 1 - Rapid 7	Test for Hydrop	hytic Veg	etation	
					N 2 - Domina	ance Test if >50)%		
					N 3 - Prevale	ence Index is ≤ 3	3.0		
					data in Re		eperate s Vegetati land hyd	sheet) on (Explain rology mus)
					Hydrophytic Vegetation Present?	Yes	No	x	
Remarks: UPLAND									

Depth (inches) Color: 0-16 10YR 2/1 Type: C=Concentration, D=Depthydric Soil Indicators: (Application of the Color) Histosol (A1)	100%	Redox Features Color: % Type:			
0-16 10YR 2/1 Type: C=Concentration, D=Dep		Color: % Type:		Texture:	Remarks:
ype: C=Concentration, D=Dep	100%	70 1760.	Loc:	=	Nemarks.
ydric Soil Indicators: (Applica				Clay Loam	
	letion, RM=Redu	iced Matrix, CS=Covered or Coated Sa	and Grains	Location: PL=	Pore Lining, M=Matrix
Historal (A1)	able to all LRRs, ι	unless otherwise noted.)	In	dicators for Problemati	c Hydric Soils
TIISLUSUI (AI)		Sandy Gleyed Matrix (S4)		Coast Prairie Redoc (A16)
Histic Epipedon (A2)	_	Sandy Redox (S5)	_	Dark Surface (S7)	
Black Histic (A3)	_	Stripped Matrix (S6)	_	Iron-Manganese Ma	
Hydrogen Sulfide (A4)		Loamy Mucky Mineral (F1)		Very Shallow Dark Su	
Stratified Layers (A5)	_	Loamy Gleyed Matrix (F2)	_	Other (Explain in Rer	narks)
2 cm Muck (A10) Depleted Below Dark Surfa		Depleted Matrix (F3) Redox Dark Surface (F6)			
X Thick Dark Surface (A12)	ace (AII)	Depleted Dark Surface (F7)	l.a.	diaakawa af huudwa whu kia	
Sandy Mucky Mineral (S1)	_	Redox Depressions (F8)		dicators of hydrophytic etland hydrology must b	
			di	sturbed or problematic.	
estrictive Layer (if present):					
Type: None		_	H	ydric Soil Present? Y	es X No
Depth (inches): NA		_		,	
emarks:					
YDROLOGY					
Vetland Hydrology Indicators	_				
		heck all that apply)		Secondary Indicat	tors (2 or more required)
rimary Indicators (minimum o Surface Water (A1)		check all that apply)Water-Stained Leaves (B9)		Surface Soil C	racks (B6)
rimary Indicators (minimum o Surface Water (A1) High Water Table (A2)		Water-Stained Leaves (B9) Aquatic Fauna (B13)		Surface Soil C Drainage Patt	racks (B6) ern (B10)
rimary Indicators (minimum o Surface Water (A1) High Water Table (A2) Saturation (A3)		Water-Stained Leaves (B9) Aquatic Fauna (B13)True Aquatic Plants (B14)		Surface Soil C Drainage Patt Dry-Season W	racks (B6) ern (B10) Vater Table (C2)
rimary Indicators (minimum oSurface Water (A1) High Water Table (A2)Saturation (A3)Water Marks (B1)		Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1)	oots (C2)	Surface Soil C Drainage Patt Dry-Season W Crayfish Burr	tracks (B6) tern (B10) Vater Table (C2) ows (C8)
rimary Indicators (minimum o Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)		Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R		Surface Soil C Drainage Patt Dry-Season W Crayfish Burre Saturation Visil	racks (B6) tern (B10) Vater Table (C2) tows (C8) tole on Aerial Imagery (C9)
rimary Indicators (minimum o Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)		Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4))	Surface Soil C Drainage Patt Dry-Season W Crayfish Burro Saturation Visil	tracks (B6) tern (B10) Vater Table (C2) tows (C8) tole on Aerial Imagery (C9) tressed Plants (D1)
rimary Indicators (minimum o Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)		Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled)	Surface Soil C Drainage Patt Dry-Season W Crayfish Burre Saturation Visil Stunted or St Geomorphic	cracks (B6) sern (B10) Vater Table (C2) ows (C8) ole on Aerial Imagery (C9) ressed Plants (D1) Position (D2)
rimary Indicators (minimum o Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	of one required; c	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4))	Surface Soil C Drainage Patt Dry-Season W Crayfish Burro Saturation Visil	cracks (B6) sern (B10) Vater Table (C2) ows (C8) ole on Aerial Imagery (C9) ressed Plants (D1) Position (D2)
rimary Indicators (minimum o Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	of one required; c	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7))	Surface Soil C Drainage Patt Dry-Season W Crayfish Burre Saturation Visil Stunted or St Geomorphic	cracks (B6) sern (B10) Vater Table (C2) ows (C8) ole on Aerial Imagery (C9) ressed Plants (D1) Position (D2)
rimary Indicators (minimum o Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im	of one required; c	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Gauge or Well Data (D9))	Surface Soil C Drainage Patt Dry-Season W Crayfish Burre Saturation Visil Stunted or St Geomorphic	cracks (B6) sern (B10) Vater Table (C2) ows (C8) ole on Aerial Imagery (C9) ressed Plants (D1) Position (D2)
rimary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Sparsely Vegetated Concave St	of one required; c	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Gauge or Well Data (D9))	Surface Soil C Drainage Patt Dry-Season W Crayfish Burre Saturation Visil Stunted or St Geomorphic	cracks (B6) sern (B10) Vater Table (C2) ows (C8) ole on Aerial Imagery (C9) ressed Plants (D1) Position (D2)
rimary Indicators (minimum o Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Sparsely Vegetated Concave So	of one required; c	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks))	Surface Soil C Drainage Patt Dry-Season W Crayfish Burre Saturation Visil Stunted or St Geomorphic	cracks (B6) sern (B10) Vater Table (C2) ows (C8) ole on Aerial Imagery (C9) ressed Plants (D1) Position (D2)
rimary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Sparsely Vegetated Concave States	of one required; c	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks)) d Soils (C6)	Surface Soil C Drainage Patt Dry-Season W Crayfish Burn Saturation Visil Stunted or St Geomorphic FAC-Neutral	cracks (B6) sern (B10) Vater Table (C2) ows (C8) ole on Aerial Imagery (C9) ressed Plants (D1) Position (D2)
rimary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Sparsely Vegetated Concave States ield Observations: urface Water Present? Yew Vater Table Present?	of one required; con agery (B7) urface (B8)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) X Depth (inches): NA X Depth (inches): NA) d Soils (C6)	Surface Soil C Drainage Patt Dry-Season W Crayfish Burn Saturation Visil Stunted or St Geomorphic FAC-Neutral	cracks (B6) cern (B10) Vater Table (C2) cows (C8) cole on Aerial Imagery (C9) ressed Plants (D1) Position (D2) Fest (D5)
rimary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Im Sparsely Vegetated Concave State (Action 1) Field Observations: Furface Water Present? Furface Water Present? Furface Water Table Present? Furface Water Table Present? Furface Water Table Present?	nagery (B7) urface (B8) es No es No	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) X Depth (inches): NA X Depth (inches): NA	d Soils (C6) Wetland Hy	Surface Soil C Drainage Patt Dry-Season W Crayfish Burn Saturation Visil Stunted or St Geomorphic FAC-Neutral	cracks (B6) cern (B10) Vater Table (C2) cows (C8) cole on Aerial Imagery (C9) ressed Plants (D1) Position (D2) Fest (D5)

	rpical for this ology No ology No map show	time of year? significantly naturally pro	Section Sectin Section Section Section Section Section Section Section Section	Sta on, Town ef (conca X ed? Are c? (if r	ate: SD ship, Range: ve, convex, none) No (if n "Normal Circums needed, explain in ons, transects,	Sampl : Convex Datur WI classification: to, explain in Rer stances" present Remarks.)	narks.) Pyes autres,	: <u>DP0</u>	
Wetland Hydrology Present? Yes _	X No		W	itnin a w	reuandr	<u> </u>	·	_	
Remarks: PEM adjacent Cobb Creek	i ulanta		<u>'</u>						
<u>Tree Stratum</u> (Plot size: 30) 1.	Absolute % Cover	DominantS pecies?	Indicato Status	or	Dominance Tes Number of Don That Are OBL, F Total Number o	minant Species FACW, or FAC:		2	(A)
	-	= Total Co	ver		Species Across			3	(B)
Sapling/Shrub Stratum (Plot size: 15)	= 10tal e0	vei		Percent of Dom That Are OBL, F	ninant Species	66	5.7%	(A/B)
1.					Prevalence Ind	ex Worksheet:			
	·	= Total Co	ver				N/Lul+in	ly by:	
Herb Stratum (Plot size: 5)		_			Total % Cover o		Multip		
	250/	V	FACIAL		OBL species	30%	x 1	30.0%	_
Spartina pectinata Shlown protoco	35%	Y	FACU		FACW species	35%	x 2	70.0%	
Phleum pratense Poa pratensis	20%	Y	FACU FAC		FAC species	20%	x 3	60.0%	
4. Carex nebrascensis	15%	N	OBL		FACU species	20%	x 4	80.0%	
5. Schoenoplectus acutus	15%	N	OBL		UPL species	0%	x 5	0.0%	
	1370				Column Totals:	105.0%	(A)	240%	(B)
6	-	· 				· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		(5)
	105%	_ = Total Co	ver		Prevalence II	nuex = b/A =	۷.	29	
Woody Vine Stratum (Plot size: 15)				Hydrophytic Ve	egetation Indica	ors:		
					N 1 - Ranid Te	est for Hydrophy	tic Veget	ation	
1						nce Test if >50%		u	
		= Total Co	ver			nce Index is ≤ 3.0			
									
						ological Adaptation narks or on a seg			orting
						c Hydrophytic Ve			1)
					Indicators of hydr		•	logy mus	st be
					present, unless di	sturbed or probl	ematic		
					Hydrophytic Vegetation Present?	Yes X	No		
Remarks: PEM									

Profile Description: (Describe to the dep	th needed to doc	ument the indic	ator or con	firm the a	bsence of indicator	
Depth Matrix		Redox Feat	ures			
(inches) Color: %	Color:	%	Type:	Loc:	Texture:	Remarks:
0-16 10YR 2/1 100%					Clay Loam	
Type: C=Concentration, D=Depletion, RM	=Reduced Matrix,	. CS=Covered or	Coated San	d Grains	Location: F	PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (Applicable to all I	RRs, unless othe	rwise noted.)			Indicators for Problem	atic Hydric Soils
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) Depleted Below Dark Surface (A11) X Thick Dark Surface (A12) Sandy Mucky Mineral (S1)	Sandy G Sandy R Stripped Loamy I Loamy G Deplete Redox D	ileyed Matrix (S4 edox (S5) d Matrix (S6) Mucky Mineral (I Gleyed Matrix (F d Matrix (F3) Dark Surface (F6) d Dark Surface (Depressions (F8)	F1) 2)		Coast Prairie Redo Dark Surface (S7) Iron-Manganese N Very Shallow Dark Other (Explain in F	oc (A16) Masses (F12) Surface (TF12) Remarks) tic vegetation and
Salidy Midchy Millerdi (31)	NeduX L	/CP1 (2310113 (F0)			wetland hydrology must disturbed or problemate	
Restrictive Layer (if present): Type: None Depth (inches): NA Remarks: PEM					Hydric Soil Present?	Yes <u>X</u> No
Wetland Hydrology Indicators Primary Indicators (minimum of one requestrated Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) X Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)	— Wat Aqua — True — Hydi — Oxidi — Pres — Rece — Thin Gau	at apply) er-Stained Leave atic Fauna (B13) Aquatic Plants (rogen Sulfide Od zed Rhizospheres ence of Reducec ent Iron Reductic Muck Surface (O ge or Well Data (er (Explain in Rer	(B14) lor (C1) on Living Roc d Iron (C4) on in Tilled S (C7)		Surface So Drainage P Dry-Season Crayfish Bu Saturation V	cators (2 or more required) il Cracks (B6) rattern (B10) n Water Table (C2) urrows (C8) risible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2) al Test (D5)
Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (includes capillary fringe)	No X Depi	th (inches): N th (inches): N th (inches): N	A A		l Hydrology Present?	Yes <u>X</u> No
Describe Recorded Data (stream guage, n Remarks: PEM	nonitoring well, a	eriai photos, pre	vious inspe	ctions), if a	available:	

Hydric Soil Present? Yes	ypical for this ology No ology No map show X No	time of year significantly naturally pr	Section Sectio	State: SD on, Township, Range of (concave, convex, X No d? Are "Normal Ci of (if needed, exp	NWI classifi (if no, explair rcumstances" p lain in Remarks	n in Remarks.) present? Yes)	DP0 D83 X es, etc.	
VEGETATION – Use scientific names of	f nlants							
Tree Stratum (Plot size: 30)	Absolute % Cover	DominantS pecies?	Indicato Status	Number of That Are	ce Test Worksh of Dominant Spo	ecies FAC:	0	(A)
Sapling/Shrub Stratum (Plot size: 15)	= Total Co	ver	Species A Percent o	nber of Domina cross All Strata of Dominant Spe OBL, FACW, or I	: ecies	0.0%	(B) (A/B)
1	·	= Total Co	ver	Prevalence Total % C	ce Index Works		iply by:	
Herb Stratum (Plot size: 5) 1. Phleum pratense 2. Poa pratensis 3. Axyris amaranthoides 4. Asclepias speciosa 5.	75% 18% 5% 5% 103%	Y N N N = Total Co	FACU FAC UPL FAC	OBL speci FACW speci FAC speci FACU speci UPL speci Column T	ies 09 ecies 09 es 23 cies 75 es 59	% x 1 % x 2 3% x 3 5% x 4 % x 5 .0% (A)	0.0% 0.0% 69.0% 300.0% 25.0% 394% 3.83	(B)
1	-	= Total Co	ver		ytic Vegetation	drophytic Veg	etation	
Remarks: UPLAND				N 3 - Pr N 4 - M data N Probl	on	is ≤ 3.0 daptations (Proon a seperate shytic Vegetation wetland hydi	sheet) on (Explair rology mu	n)

Depth (inches) Matrix 0-16 10YR 3/2	×		Dodov	F 4			
	0.1			Features		 Texture:	Remarks:
0-16 10YR 3/2	<u>%</u>	Cole	or: %	Type:	Loc:	Clay Loam	nemarks.
	100%					Clay Loam	
ype: C=Concentration, D=De	pletion, RM=	=Reduced N	latrix, CS=Covere	ed or Coated Sai	nd Grains	Location:	PL=Pore Lining, M=Matrix
ydric Soil Indicators: (Applic	cable to all L	RRs, unless	otherwise note	d.)		Indicators for Problem	matic Hydric Soils
Histosol (A1)		Sa	ndy Gleyed Mat	rix (S4)		Coast Prairie Rec	doc (A16)
Histic Epipedon (A2)		· · · · · · · · · · · · · · · · · · ·	ndy Redox (S5)			Dark Surface (S7	
Black Histic (A3)			ripped Matrix (S			Iron-Manganese	
Hydrogen Sulfide (A4)			amy Mucky Min			Very Shallow Da	
Stratified Layers (A5) 2 cm Muck (A10)			amy Gleyed Mat epleted Matrix (F			Other (Explain in	i Kemarks)
Depleted Below Dark Sur	rface (A11)		edox Dark Surfac				
X Thick Dark Surface (A12)			epleted Dark Sur			Indicators of hydroab	outic vegetation and
Sandy Mucky Mineral (S1			dox Depressions			Indicators of hydroph wetland hydrology m disturbed or problem	ust be present, unless
testrictive Layer (if present):						astarbed or problem	
Type: None						male o no lie	W W N
Depth (inches): NA						Hydric Soil Present?	Yes X No
Remarks: UPLAND							
Vetland Hydrology Indicator		ired check :	all that apply)			Secondary In	dicators (2 or more required)
Vetland Hydrology Indicator		ired; check :	all that apply) Water-Stained	Leaves (B9)			dicators (2 or more required)
Vetland Hydrology Indicator rimary Indicators (minimum		ired; check a	_Water-Stained Aquatic Fauna ((B13)		Surface S Drainage	oil Cracks (B6) Pattern (B10)
Vetland Hydrology Indicator rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3)		ired; check :	Water-Stained Aquatic Fauna (True Aquatic Pl	(B13) ants (B14)		Surface S Drainage Dry-Sease	oil Cracks (B6) Pattern (B10) on Water Table (C2)
Vetland Hydrology Indicator rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)		ired; check a	Water-Stained Aquatic Fauna (_True Aquatic Pl _Hydrogen Sulfic	(B13) ants (B14) de Odor (C1)	244(52)	Surface S Drainage Dry-Sease Crayfish I	oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8)
Vetland Hydrology Indicator Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)		ired; check a	Water-Stained Aquatic Fauna (True Aquatic Pl Hydrogen Sulfic Oxidized Rhizosp	(B13) ants (B14) de Odor (C1) heres on Living Ro	oots (C3)	Surface S Drainage Dry-Sease Crayfish I	oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) I Visible on Aerial Imagery (C9)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)		ired; check :	Water-Stained Aquatic Fauna (True Aquatic Pl Hydrogen Sulfic Oxidized Rhizosp Presence of Rec	(B13) ants (B14) de Odor (C1) heres on Living Ro duced Iron (C4)		Surface S DrainageDry-SeaseCrayfish ISaturationStunted of	oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Vetland Hydrology Indicator rrimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)		ired; check :	Water-Stained Aquatic Fauna (True Aquatic Pl Hydrogen Sulfic Oxidized Rhizosp Presence of Rec Recent Iron Rec	(B13) ants (B14) de Odor (C1) heres on Living Ro duced Iron (C4) duction in Tilled		Surface S Drainage Dry-Sease Crayfish I Saturation Stunted of	oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2)
Vetland Hydrology Indicator rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	of one requi	ired; check a	Water-Stained Aquatic Fauna (True Aquatic Pl Hydrogen Sulfic Oxidized Rhizosp Presence of Rec	(B13) ants (B14) de Odor (C1) heres on Living Ro duced Iron (C4) duction in Tilled face (C7)		Surface S Drainage Dry-Sease Crayfish I Saturation Stunted of	oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Vetland Hydrology Indicator rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	of one requi	ired; check a	Water-Stained Aquatic Fauna (True Aquatic Pl Hydrogen Sulfic Oxidized Rhizosp Presence of Rec Recent Iron Rec Thin Muck Surf	(B13) ants (B14) de Odor (C1) heres on Living Ro duced Iron (C4) duction in Tilled face (C7) Data (D9)		Surface S Drainage Dry-Sease Crayfish I Saturation Stunted of	oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2)
Vetland Hydrology Indicator rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial I	of one requi	ired; check a	Water-Stained Aquatic Fauna (True Aquatic Pl Hydrogen Sulfic Oxidized Rhizosp Presence of Rec Recent Iron Rec Thin Muck Surf Gauge or Well	(B13) ants (B14) de Odor (C1) heres on Living Ro duced Iron (C4) duction in Tilled face (C7) Data (D9)		Surface S Drainage Dry-Sease Crayfish I Saturation Stunted of	oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2)
Vetland Hydrology Indicator rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial I Sparsely Vegetated Concave	of one requi	ired; check a	Water-Stained Aquatic Fauna (True Aquatic Pl Hydrogen Sulfic Oxidized Rhizosp Presence of Rec Recent Iron Rec Thin Muck Surf Gauge or Well	(B13) ants (B14) de Odor (C1) heres on Living Ro duced Iron (C4) duction in Tilled face (C7) Data (D9)		Surface S Drainage Dry-Sease Crayfish I Saturation Stunted of	oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2)
Vetland Hydrology Indicator rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial I Sparsely Vegetated Concave	of one requi		Water-Stained Aquatic Fauna (True Aquatic Pl Hydrogen Sulfic Oxidized Rhizosp Presence of Rec Recent Iron Rec Thin Muck Surf Gauge or Well	(B13) ants (B14) de Odor (C1) heres on Living Ro duced Iron (C4) duction in Tilled face (C7) Data (D9) in Remarks)		Surface S Drainage Dry-Sease Crayfish I Saturation Stunted of	oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2)
Vetland Hydrology Indicator rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial I Sparsely Vegetated Concave	of one requi Imagery (B7) Surface (B8)	No _X_	Water-Stained Aquatic Fauna (True Aquatic Pl Hydrogen Sulfic Oxidized Rhizosp Presence of Rec Recent Iron Rec Thin Muck Surf Gauge or Well I Other (Explain i	(B13) ants (B14) de Odor (C1) heres on Living Ro duced Iron (C4) duction in Tilled face (C7) Data (D9) in Remarks)	Soils (C6)	Surface S Drainage Dry-Sease Crayfish I Saturation Stunted of	oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2)
Vetland Hydrology Indicator rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial I Sparsely Vegetated Concave	of one requi	NoX	Water-Stained Aquatic Fauna (True Aquatic Pl Hydrogen Sulfic Oxidized Rhizosp Presence of Rec Recent Iron Rec Thin Muck Surf Gauge or Well I Other (Explain i	(B13) ants (B14) de Odor (C1) heres on Living Ro duced Iron (C4) duction in Tilled face (C7) Data (D9) in Remarks)	Soils (C6)	Surface S Drainage Dry-Sease Crayfish I Saturation Stunted of Geomore FAC-Neur	oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2) tral Test (D5)

Hydric Soil Present? Yes	pical for this blogy No blogy No map show X No	time of year? significantly naturally pro ing sampli	Section Sectin Section Section Section Section Section Section Section Section	Station, Town itef (concast X and Ared? Aredic? (if item item item item item)	ate: SD ship, Range: ve, convex, none) No (if n "Normal Circums needed, explain in ons, transects,	Convex Datu VI classification: o, explain in Rer tances" present Remarks.)	narks.) ? Yes autres	283 X	
Wetland Hydrology Present? Yes	X No								
Remarks: PEM along Cobb Creek									
VEGETATION – Use scientific names of	•								
<u>Tree Stratum</u> (Plot size: <u>30</u>)	Absolute % Cover	DominantS pecies?	Indicato Status	or	Dominance Tes Number of Don That Are OBL, F	ninant Species		2	(A)
1					Total Number of			2	(B)
Sapling/Shrub Stratum (Plot size: 15)	_ = Total Co	ver		Species Across and Percent of Dome That Are OBL, F	inant Species	10		(A/B)
1.					Prevalence Ind	ex Worksheet:			
		= Total Co	ver		Total % Cover o		Multir	oly by:	
Herb Stratum (Plot size: 5)		_			OBL species	55%	x 1	55.0%	_
Spartina pectinata	35%	Υ	FACW	,	FACW species	60%	x 2	120.0%	_
2. Phalaris arundinacea	25%	Υ	FACW	<u>' </u>	FAC species	0%	x 3	0.0%	_
3. Schoenoplectus acutus	20%	N	OBL		FACU species	0%	x 4	0.0%	_
4. Schoenoplectus tabernaemontani	20%	N	OBL		UPL species	0%	^ + _ x 5	0.0%	_
5. <u>Carex aquatilis</u>	15%	N	OBL		Column Totals:		_		— (D)
6							(A)	175%	(B)
	115%	_ = Total Co	ver		Prevalence Ir	idex = B/A =	1	52	
Woody Vine Stratum (Plot size: 15)				Hydrophytic Ve	getation Indica	ors:		
					Y 1 - Rapid Te	est for Hydrophy	tic Vege	tation	
1			-		Y 2 - Domina	nce Test if >50%			
		_ = Total Co	ver		Y 3 - Prevaler	nce Index is ≤ 3.0	ı		
					Y 4 - Morpho data in Ren	logical Adaptation narks or on a sep or Hydrophytic Vo ic soil and wetla	ons (Proverse erate she getation nd hydro	neet) n (Explain	ı)
					Hydrophytic Vegetation Present?	Yes X	No		
Remarks: PEM									

Profile Descr	iption: (Describ	e to the de	oth needed	to document the	indicator or co	nfirm the a	bsence of indicator	
Depth	Matri	x		Redox I	Features			
(inches)	Color:	%	Co	olor: %	Type:	Loc:	Texture:	Remarks:
0-16	10YR 2/1	100%					Clay Loam	
Type: C=Cond	centration. D=De	epletion. RN	∕l=Reduced	Matrix, CS=Covere	d or Coated Sa	nd Grains	Location:	PL=Pore Lining, M=Matrix
• • • • • • • • • • • • • • • • • • • •	· · · · · · · · · · · · · · · · · · ·	•		ss otherwise noted			Indicators for Problem	
Histosol Histic Ep Black Hi Hydroge Stratifie 2 cm Mi Deplete X Thick Da		rface (A11)		Sandy Gleyed Matri Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mine Loamy Gleyed Matri Depleted Matrix (F3 Redox Dark Surface Depleted Dark Surface Redox Depressions	ix (S4)) eral (F1) rix (F2) 3) e (F6) ace (F7)		Coast Prairie Red Dark Surface (S7) Iron-Manganese Very Shallow Dar Other (Explain in Indicators of hydrophy wetland hydrology mudisturbed or problema	oc (A16) Masses (F12) k Surface (TF12) Remarks) ytic vegetation and ust be present, unless
Type: <u>N</u> Depth (ir		:					Hydric Soil Present?	Yes <u>X</u> No
Primary Indic	drology Indicato cators (minimum Water (A1) ter Table (A2)		uired; chec —	k all that apply) Water-Stained L Aquatic Fauna (I True Aquatic Pla	B13)		Surface So Drainage	licators (2 or more required) oil Cracks (B6) Pattern (B10) on Water Table (C2)
Water M Sedimen Drift Dep Algal Ma Iron Dep Inundatio				Hydrogen Sulfid Oxidized Rhizosph Presence of Red Recent Iron Red Thin Muck Surfa Gauge or Well D Other (Explain in	e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ace (C7) pata (D9)		Crayfish B Saturation Stunted o	surrows (C8) Visible on Aerial Imagery (C9) r Stressed Plants (D1) hic Position (D2)
Field Observe Surface Water Water Table Saturation Pr (includes cap	er Present? Present? resent? villary fringe)	Yes X Yes X Yes X	No	•	1 0 0		d Hydrology Present?	Yes <u>X</u> No
Remarks:	2222300		29	3, 22 p505	, ,			

Hydric Soil Present? Yes	pical for this blogy No blogy No map show	time of year? significantly naturally pro ing samplin X	Sec Local re Long: Yes disturb oblema	x ped? A atic? (i	State: SD vnship, Range: cave, convex, none) N No (if r re "Normal Circums f needed, explain in	: Linear Slo Dat WI classificatio no, explain in R stances" presen n Remarks.)	tum: NAI n: emarks.) nt? Yes feautre	DP0 D83 X s, etc.	
VEGETATION – Use scientific names of Tree Stratum (Plot size: 30)	plants Absolute % Cover	DominantS pecies?	Indica Status		Dominance Te	st Worksheet:			
1. Sapling/Shrub Stratum (Plot size: 15		= Total Co			Number of Dor That Are OBL, I Total Number of Species Across Percent of Don	FACW, or FAC: of Dominant All Strata:		0 1 0.0%	(A) (B) (A/B)
1. Herb Stratum (Plot size: 5) 1. Phleum pratense 2. Spartina pectinata	70% 20%	= Total Cov	ver FAC		That Are OBL, F Prevalence Ind Total % Cover of OBL species FACW species FAC species	ex Worksheet	:	ply by: 0.0% 40.0% 45.0%	
Poa pratensis 4. Woody Vine Stratum (Plot size: 15	105%	= Total Cov	ver	<u>C</u>	FACU species UPL species Column Totals: Prevalence I	70% 0% 105.0% ndex = B/A =	x 4 _ x 5 _ (A)	280.0% 0.0% 365% 3.48	(B)
		= Total Co	ver		N 1 - Rapid To N 2 - Domina N 3 - Prevaled N 4 - Morpho data in Rer N Problemati Indicators of hydroresent, unless di	est for Hydropl nce Test if >50 nce Index is ≤ 3 plogical Adapta narks or on a s ic Hydrophytic ric soil and wet	hytic Vege % 3.0 tions (Pro eperate s Vegetatic land hydr	ovide supp heet) on (Explair	n)
Remarks: UPLAND					Hydrophytic Vegetation Present?	Yes	No	<u>x</u>	

Profile Description: (Des	cribe to the	depth nee	eded to doc	ument the i	ndicator or co	nfirm the a	bsence of indicator	
·	atrix			Redox F	eatures			
(inches) Color:		6	Color:	%	Type:	Loc:	Texture:	Remarks:
0-16 10YR 2/	1 10	0%					Clay Loam	
Type: C=Concentration, D	=Depletion,	RM=Redu	ıced Matrix,	CS=Covered	d or Coated Sa	nd Grains	Location:	PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (A	pplicable to	all LRRs, ι	unless othe	rwise noted	.)		Indicators for Problem	natic Hydric Soils
Histosol (A1) Histic Epipedon (A2)		_		leyed Matri edox (S5)	x (S4)		Coast Prairie Redo	oc (A16)
Black Histic (A3) Hydrogen Sulfide (A		_	Loamy I	d Matrix (S6) Mucky Mine	ral (F1)		Iron-Manganese I Very Shallow Darl	Surface (TF12)
Stratified Layers (A5 2 cm Muck (A10)		_ _	Deplete	Gleyed Matri d Matrix (F3	3)		Other (Explain in	Remarks)
Depleted Below Dar X Thick Dark Surface (Sandy Mucky Minera	A12)		Deplete	oark Surface d Dark Surfa Depressions (ice (F7)		Indicators of hydrophy wetland hydrology mu disturbed or problema	st be present, unless
Restrictive Layer (if prese	ent):							
Depth (inches): NA	1		_				Hydric Soil Present?	Yes <u>X</u> No
HYDROLOGY Wetland Hydrology India	ators							
Primary Indicators (minin		required; o	heck all tha	t apply)			Secondary Ind	icators (2 or more required)
Surface Water (A1)			Wate	er-Stained Le	eaves (B9)		Surface Sc	il Cracks (B6)
High Water Table (A2	·.)			atic Fauna (B				Pattern (B10)
Saturation (A3)				Aquatic Plan				n Water Table (C2)
Water Marks (B1)	-01			ogen Sulfide		(62)		urrows (C8)
Sediment Deposits (B	32)			· ·	eres on Living Ro	oots (C3)		Visible on Aerial Imagery (C9)
Drift Deposits (B3) Algal Mat or Crust (Ba	1)				uced Iron (C4) uction in Tilled	Soils (C6)		r Stressed Plants (D1) nic Position (D2)
Iron Deposits (B5)	+)			Muck Surfac		30113 (CO)		ral Test (D5)
Inundation Visible on Ae Sparsely Vegetated Con			Gau	ge or Well Da er (Explain in	ata (D9)		TAC Neuti	ar rest (DS)
		` '		(,,			
Field Observations:								
Surface Water Present?		No		th (inches):	NA			
Water Table Present?		No		th (inches):	NA	Wetland	Hydrology Present?	Yes <u>X</u> No
Saturation Present? (includes capillary fringe)		No		h (inches):	NA	anticus of	ava ilahla	
Describe Recorded Data (stream gua	ge, monito	ring well, a	erial photos,	previous insp	ections), if a	available:	
Remarks: No hydrology	/							

Hydric Soil Present? Yes	pical for this blogy No blogy No map show X No X No	time of year? significantly naturally pro	Section Sectin Section Section Section Section Section Section Section Section	St tion, Towr lief (conca X ed? Are tic? (if nt locati	ate: SD aship, Range: ave, convex, none): NW No (if no e "Normal Circumsta needed, explain in R ions, transects, i	Convex Datu I classification: , explain in Rerances" present	marks.) ? Yes eautres, e	DP05 X etc.	55
\\(\(\)	.1								
VEGETATION – Use scientific names of Tree Stratum (Plot size: 30) 1.	Absolute % Cover	DominantS pecies?	Indica Status		Dominance Test Number of Domi That Are OBL, FA	nant Species CW, or FAC:	1		(A)
Sapling/Shrub Stratum (Plot size: 15)	= Total Co	ver		Total Number of Species Across Al Percent of Domir That Are OBL, FA	ll Strata: nant Species	100.		(B) (A/B)
1					Prevalence Index				
		= Total Co	ver		Total % Cover of:		Multiply	bv:	
Herb Stratum (Plot size: 5)					OBL species	0%		0.0%	
Spartina pectinata	90%	Υ	FACV	V	FACW species	100%	-	00.0%	<u> </u>
2. Phalaris arundinacea	10%	N	FACV	V	FAC species	0%	-	0.0%	_
3					FACU species	0%	-	0.0%	_
	100%	= Total Co	ver		UPL species	0%	-	0.0%	_
Woody Vine Stratum (Plot size: 15)				Column Totals:	100.0%		200%	(B)
					Prevalence Inc		2.00		_ (b)
1						-		· · · · · · · · · · · · · · · · · · ·	_
		_ = Total Co	ver		Hydrophytic Veg Y 1 - Rapid Tes Y 2 - Dominanc Y 3 - Prevalenc data in Rema N Problematic Indicators of hydric present, unless dist Hydrophytic Vegetation Present?	t for Hydrophy ce Test if >50% e Index is ≤ 3.0 egical Adaptation orks or on a sep Hydrophytic Vo soil and wetla urbed or probl	ons (Provid perate shee egetation (I nd hydrolo	le supp et) Explain)
Remarks: PEM									

Profile Description: (Describe to the dep	th needed to doc	ument the indic	ator or con	firm the a	bsence of indicator	
Depth Matrix		Redox Feat	ures			
(inches) Color: %	Color:	%	Type:	Loc:	Texture:	Remarks:
0-16 10YR 2/1 100%					Clay Loam	
Type: C=Concentration, D=Depletion, RM	=Reduced Matrix,	. CS=Covered or	Coated San	d Grains	Location: F	PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (Applicable to all I	RRs, unless othe	rwise noted.)			Indicators for Problem	atic Hydric Soils
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) Depleted Below Dark Surface (A11) X Thick Dark Surface (A12) Sandy Mucky Mineral (S1)	Sandy G Sandy R Stripped Loamy I Loamy G Deplete Redox D	ileyed Matrix (S4 edox (S5) d Matrix (S6) Mucky Mineral (I Gleyed Matrix (F d Matrix (F3) Dark Surface (F6) d Dark Surface (Depressions (F8)	F1) 2)		Coast Prairie Redo Dark Surface (S7) Iron-Manganese N Very Shallow Dark Other (Explain in F	oc (A16) Masses (F12) Surface (TF12) Remarks) tic vegetation and
Sariay Macky Millerdi (31)	NeduX L	/CP1 (2310113 (F0)			wetland hydrology must disturbed or problemate	
Restrictive Layer (if present): Type: None Depth (inches): NA Remarks: PEM					Hydric Soil Present?	Yes <u>X</u> No
Wetland Hydrology Indicators Primary Indicators (minimum of one requestrated Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) X Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)	— Wat Aqua — True — Hydi — Oxidi — Pres — Rece — Thin Gau	at apply) er-Stained Leave atic Fauna (B13) Aquatic Plants (rogen Sulfide Od zed Rhizospheres ence of Reducec ent Iron Reductic Muck Surface (O ge or Well Data (er (Explain in Rer	(B14) lor (C1) on Living Roc d Iron (C4) on in Tilled S (C7)		Surface So Drainage P Dry-Season Crayfish Bu Saturation V	cators (2 or more required) il Cracks (B6) rattern (B10) n Water Table (C2) urrows (C8) risible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2) al Test (D5)
Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (includes capillary fringe)	No X Depi	th (inches): N th (inches): N th (inches): N	A A		l Hydrology Present?	Yes <u>X</u> No
Describe Recorded Data (stream guage, n Remarks: PEM	nonitoring well, a	eriai photos, pre	vious inspe	ctions), if a	available:	

Hydric Soil Present? Yes _ Wetland Hydrology Present? Yes _	rpical for this plogy No	time of year significantly naturally pr ing sampli X X	See Local ro Long: Yes disturted to blems	x bed? A atic? (sint local	State: SD wnship, Range: cave, convex, none) No (if n wre "Normal Circums if needed, explain in	Sam Linear Slo Dat WI classificatio o, explain in Ro tances" preser Remarks.)	n: NAI n: emarks.) nt? Yes	DP05 D83 X s, etc.	56
Remarks: UPLAND									
VEGETATION – Use scientific names of Tree Stratum (Plot size: 30)	plants Absolute % Cover	DominantS pecies?	Indica Statu		Dominance Tes				
1		= Total Co			That Are OBL, F Total Number of Species Across	ACW, or FAC: of Dominant			(A) (B)
Sapling/Shrub Stratum (Plot size: 15)				Percent of Dom That Are OBL, F	ACW, or FAC:		0.0%	(A/B)
		= Total Co	ver		Total % Cover o			ply by:	
Herb Stratum (Plot size: 5) 1. Bromus inermis 2.	95%	Y	FAC	CU	OBL species FACW species FAC species	0% 0% 0%	_ x1 _ _ x2 _ _ x3	0.0% 0.0% 0.0%	_
Woody Vine Stratum (Plot size: 15	95%	= Total Co	ver		FACU species UPL species	95%	_	380.0%	_ _ _
1					Column Totals: Prevalence Ir		(A) _	380% 4.00	(B)
		_ = Total Co	ver		Hydrophytic Ve N 1 - Rapid Te N 2 - Domina N 3 - Prevaler N 4 - Morpho data in Ren N Problemati Indicators of hydr present, unless di Hydrophytic Vegetation Present?	est for Hydroph nce Test if >50 nce Index is ≤ 3 logical Adapta narks or on a so c Hydrophytic ic soil and wet	nytic Vege % i.0 tions (Pro eperate s Vegetatic land hydr	ovide suppo heet) on (Explain) ology mus)
Remarks: UPLAND									

Depth Ma					dox Features			ture:	Б	lemarks:	
inches) Color:			Color	<u>: </u>	<u>%</u> <u>Ty</u>	pe: Loc				emarks	
0-16 10YR 3/4	100	1%									
pe: C=Concentration, D=	Depletion, F	RM=Red	luced Ma	trix, CS=Co	vered or Coato	ed Sand Grains		Location:	PL=Pore Li	ning, M=	Matrix
ydric Soil Indicators: (Ap	plicable to a	all LRRs,	unless o	therwise n	oted.)		Indicators	for Probler	natic Hydri	c Soils	
Histosol (A1)			Sand	dy Gleyed N	Matrix (S4)		Coast	Prairie Red	oc (A16)		
Histic Epipedon (A2)		-	Sand	dy Redox (S	55)		Dark S	Surface (S7)	1		
Black Histic (A3)		-		ped Matri				<i>M</i> anganese			
Hydrogen Sulfide (A4))			-	Mineral (F1)			Shallow Dar		TF12)	
Stratified Layers (A5)		-			Matrix (F2)		Other	(Explain in	Remarks)		
2 cm Muck (A10) Depleted Below Dark	Surface (A1	1)		leted Matr ox Dark Sui							
Thick Dark Surface (A		-)			Surface (F7)		la disease as	. ما مد مدا ک		.:	
Sandy Mucky Mineral	-	-	•	ox Depress			wetland hy	of hydroph drology mu or problema	ust be pres		SS
							uistui beu t	or problem	itic.		
estrictive Layer (if prese Type: None	ıt):										
· · ·			<u>—</u>				Hydric Soil	Present?	Yes	No	X
Depth (inches): <u>NA</u> emarks: UPLAND POW											
etland Hydrology Indica	um of one re	equired;	\	Water-Stair Aquatic Fau	ned Leaves (B9		Se-	Drainage	dicators (2 o oil Cracks (1 Pattern (B1 on Water Ta	B6) L0)	equired
Vetland Hydrology Indicarimary Indicators (minimomomomomomomomomomomomomomomomomomo	um of one re	equired;	\ 1 H	Vater-Stair Aquatic Fau True Aquati Hydrogen S	ned Leaves (B9 ina (B13) ic Plants (B14) ulfide Odor (C	1)	Se:	Surface So Drainage Dry-Seaso Crayfish E	oil Cracks (I Pattern (B1 on Water Ta Burrows (C8	B6) L0) able (C2) B)	
Vetland Hydrology Indica rimary Indicators (minimon Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2	um of one re	equired;	\\ 1 1	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rhiz	ned Leaves (B9 ina (B13) ic Plants (B14) ulfide Odor (C cospheres on Liv	1) ring Roots (C3)	Se-	Surface Son Drainage Dry-Seaso Crayfish E Saturation	oil Cracks (I Pattern (B1 on Water Ta Burrows (C8 Visible on A	B6) L0) able (C2) B) erial Imag	ery (C9)
Vetland Hydrology Indica rimary Indicators (minimi Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	um of one re	equired;	\ 1 F	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rhiz Presence of	ned Leaves (B9 na (B13) ic Plants (B14) ulfide Odor (C cospheres on Liv FReduced Iron	1) ring Roots (C3) (C4)	Se-	Surface Son Drainage Dry-Season Crayfish E Saturation Stunted o	oil Cracks (I Pattern (B1 on Water Ta Burrows (C8 Visible on A r Stressed	B6) L0) able (C2) B) erial Imag Plants (D	ery (C9)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	um of one re	equired;	\ T H F	Water-Stair Aquatic Fau True Aquati Hydrogen S Oxidized Rhiz Presence of Recent Iron	ned Leaves (B9 ina (B13) ic Plants (B14) ulfide Odor (C cospheres on Liv Reduced Iron Reduction in	1) ring Roots (C3)	Se:	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp	oil Cracks (I Pattern (B1 on Water Ta Burrows (CE Visible on A r Stressed hic Position	B6) L0) able (C2) B) erial Imag Plants (D n (D2)	ery (C9)
Vetland Hydrology Indicarimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	um of one re		\ 1 	Water-Stair Aquatic Fau True Aquati Hydrogen S Dxidized Rhiz Presence of Recent Iron Thin Muck S	ned Leaves (B9 ina (B13) ic Plants (B14) ulfide Odor (C cospheres on Liv Reduced Iron Reduction in Surface (C7)	1) ring Roots (C3) (C4)	Se-	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp	oil Cracks (I Pattern (B1 on Water Ta Burrows (C8 Visible on A r Stressed	B6) L0) able (C2) B) erial Imag Plants (D n (D2)	ery (C9)
Vetland Hydrology Indicarimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	um of one re 2) ial Imagery (B	37)	\ 	Water-Stair Aquatic Fau True Aquati Hydrogen S Dxidized Rhiz Presence of Recent Iron Thin Muck S Gauge or W	ned Leaves (B9 ina (B13) ic Plants (B14) ulfide Odor (C cospheres on Liv Reduced Iron Reduction in	1) ing Roots (C3) (C4) Tilled Soils (C6)	Se:	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp	oil Cracks (I Pattern (B1 on Water Ta Burrows (CE Visible on A r Stressed hic Position	B6) L0) able (C2) B) erial Imag Plants (D n (D2)	ery (C9)
Tetland Hydrology Indicatimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer	um of one re 2) ial Imagery (B	37)	\ 	Water-Stair Aquatic Fau True Aquati Hydrogen S Dxidized Rhiz Presence of Recent Iron Thin Muck S Gauge or W	ned Leaves (B9 ina (B13) ic Plants (B14) ulfide Odor (C cospheres on Liv Reduced Iron Reduction in Surface (C7) (ell Data (D9)	1) ing Roots (C3) (C4) Tilled Soils (C6)	Se-	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp	oil Cracks (I Pattern (B1 on Water Ta Burrows (CE Visible on A r Stressed hic Position	B6) L0) able (C2) B) erial Imag Plants (D n (D2)	ery (C9)
retland Hydrology Indicatimary Indicators (minimary Indicators (minimary Indicators) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Sparsely Vegetated Concert	um of one re	37) 38)		Water-Stair Aquatic Fau True Aquati Hydrogen S Dxidized Rhiz Presence of Recent Iron Thin Muck S Gauge or W Other (Expla	ned Leaves (B9 ina (B13) ic Plants (B14) ulfide Odor (C cospheres on Liv Reduced Iron Reduction in Surface (C7) Yell Data (D9) ain in Remarks	1) ing Roots (C3) (C4) Tilled Soils (C6)	Se:	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp	oil Cracks (I Pattern (B1 on Water Ta Burrows (CE Visible on A r Stressed hic Position	B6) L0) able (C2) B) erial Imag Plants (D n (D2)	ery (C9)
Vetland Hydrology Indicationary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Sparsely Vegetated Concorded	um of one re 2) rial Imagery (B ave Surface (B	37) 38) No		Vater-Stair Aquatic Fau True Aquati Hydrogen S Didized Rhiz Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	ned Leaves (B9 ina (B13) ic Plants (B14) ulfide Odor (C cospheres on Liv Reduced Iron Reduction in Surface (C7) fell Data (D9) ain in Remarks	1) ring Roots (C3) (C4) Tilled Soils (C6)		Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp FAC-Neut	oil Cracks (I Pattern (B1 on Water Ta Burrows (CE Visible on A or Stressed hic Position ral Test (D5	B6) L0) able (C2) B) erial Imag Plants (D n (D2) E)	ery (C9)
Vetland Hydrology Indicarimary Indicators (minimary Indicators (minimary Indicators (Minimary Indicators) — Water Water Table (A2) — Saturation (A3) — Water Marks (B1) — Sediment Deposits (B2) — Drift Deposits (B3) — Algal Mat or Crust (B4) — Iron Deposits (B5) — Inundation Visible on Aere Sparsely Vegetated Concerns — Sparsely Ve	um of one re 2) rial Imagery (B ave Surface (B Yes Yes	37) 38) No No _	X [X]	Vater-Stair Aquatic Fau True Aquati Hydrogen S Dxidized Rhiz Presence of Recent Iron Thin Muck S Gauge or W Other (Explain Depth (inch	ned Leaves (B9 na (B13) c Plants (B14) ulfide Odor (C cospheres on Liv Reduced Iron Reduction in Surface (C7) Yell Data (D9) ain in Remarks es): NA es): NA	1) ring Roots (C3) (C4) Tilled Soils (C6)	d Hydrology	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp FAC-Neut	oil Cracks (I Pattern (B1 on Water Ta Burrows (CE Visible on A r Stressed hic Position	B6) L0) able (C2) B) erial Imag Plants (D n (D2) E)	ery (C9)
Vetland Hydrology Indicarimary Indicators (minimary Indicators (minimary Indicators (Minimary Indicators) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer	um of one re 2) rial Imagery (B ave Surface (B Yes Yes Yes	37) 38) No No	X [X] [X	Water-Stair Aquatic Fau True Aquatic Hydrogen S Oxidized Rhiz Presence of Recent Iron Thin Muck S Gauge or W Other (Explain Depth (inch Depth (inch	ned Leaves (B9 nna (B13) c Plants (B14) ulfide Odor (C cospheres on Liv Reduced Iron Reduction in Surface (C7) rell Data (D9) ain in Remarks es): NA es): NA NA	1) ring Roots (C3) (C4) Tilled Soils (C6) S) Wetlan	d Hydrology	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp FAC-Neut	oil Cracks (I Pattern (B1 on Water Ta Burrows (CE Visible on A or Stressed hic Position ral Test (D5	B6) L0) able (C2) B) erial Imag Plants (D n (D2) E)	ery (C9)

Wetland Hydrology Present? Yes	pical for this blogy No blogy No map show	time of year? significantly naturally pro ing sampli	Sect Local re Long: _ ? Yes _ r disturb oblemat	Stion, Town lief (conca X ned? Are tic? (if nt locati	ate: SD aship, Range: ave, convex, none) N' No (if re "Normal Circums needed, explain in ions, transects, apled Area	Sampl : Convex Datur WI classification: no, explain in Ren stances" present	m: NAD83 narks.) Yes	
Remarks: PEM VEGETATION – Use scientific names of Tree Stratum (Plot size: 30)	plants Absolute % Cover	DominantS pecies?	Indicat Status		Dominance Te	ninant Species	2	(A)
1. Sapling/Shrub Stratum (Plot size: 15)	= Total Co	ver		That Are OBL, F Total Number of Species Across Percent of Dom That Are OBL, F	of Dominant All Strata: ninant Species	2	(B)
1. Herb Stratum (Plot size: 5) 1. Spartina pectinata 2. Phalaris arundinacea 3. Typha angustifolia 4. Woody Vine Stratum (Plot size: 15	70% 30% 15% 115%	= Total Cov	FACV OBL	N	Prevalence Ind Total % Cover of OBL species FACW species FAC species FACU species UPL species Column Totals: Prevalence In	15% 100% 0% 0% 0% 115.0%	x 2 200 x 3 0.0 x 4 0.0 x 5 0.0	y: .0% 0.0% 0% 0% 0% 5% (B)
1.		_ = Total Co	ver		Y 1 - Rapid To Y 2 - Domina Y 3 - Prevalet Y 4 - Morpho data in Ren		tic Vegetation ons (Provide perate sheet) egetation (Ex and hydrology ematic	supporting) (plain)
Remarks: PEM								

Profile Descri	ption: (Descri	be to t	he dep	th needed	l to docu	ment the i	ndicator or co	onfirm the a	bsence of indicator		
Depth	Mat	rix				Redox F	eatures				
(inches)	Color:		%	C	olor:	%	Type:	Loc:	Texture:	Remarks:	
0-16	10YR 2/1	:	100%						Clay Loam		
Type: C=Conc	entration, D=I	Depletio	on, RM	I=Reduced	Matrix,	CS=Covered	d or Coated Sa	and Grains	Location:	PL=Pore Lining, M=Matrix	
Hydric Soil In	dicators: (App	licable	to all	LRRs, unle	ss other	wise noted	.)		Indicators for Probler	matic Hydric Soils	
Histosol Histic Ep Black His Hydroge Stratified 2 cm Mu Depleted X Thick Da	(A1) ipedon (A2) stic (A3) n Sulfide (A4) d Layers (A5)	Surface 2)			Sandy Gl Sandy Re Stripped Loamy M Loamy G Depleted Redox Da Depleted	eyed Matri: dox (S5) Matrix (S6) lucky Mine leyed Matr I Matrix (F3 ark Surface I Dark Surfa	x (S4) ral (F1) ix (F2) i) (F6) ace (F7)		Coast Prairie Red Dark Surface (S7) Iron-Manganese Very Shallow Dar Other (Explain in	Masses (F12) Remarks) ytic vegetation and	
·	•	-							disturbed or problem		
Type: <u>No</u> Depth (in		t):							Hydric Soil Present?	Yes <u>X</u> No	_
Primary Indica Surface W X High Wate X Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundation	rology Indicate ators (minimu Vater (A1) er Table (A2) n (A3) arks (B1) : Deposits (B2) osits (B3) : or Crust (B4)	m of or	ry (B7)	uired; chec	Wate Aquat True / Hydro Oxidiz Prese Recer Thin N	r-Stained Letic Fauna (E Aquatic Pla Ogen Sulfide ed Rhizosphe nce of Redi	s13) nts (B14) e Odor (C1) eres on Living R uced Iron (C4) uction in Tilled ce (C7) ata (D9)	1	Surface S Drainage Dry-Sease Crayfish E Saturation Stunted c	dicators (2 or more require oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1) hic Position (D2) ral Test (D5)	
Field Observa Surface Wate Water Table F Saturation Pre (includes capi Describe Reco	r Present? Present? esent?	Yes _ Yes _	X	No X No No nonitoring	Depth Depth	n (inches): n (inches): n (inches): rial photos,	NA 10 0 previous insp		d Hydrology Present? available:	Yes <u>X</u> No	_
Remarks:											

	rpical for this plogy No	time of year significantly naturally pr ing sampli X	Sec Local ro Long: ? Yes / distur roblema	x bed? A atic? (int loca	State: SD vnship, Range: cave, convex, none) N No(if n ure "Normal Circums if needed, explain in	Elinear Slower S	um: NA n: emarks.) nt? Yes	D83	58
				within a	Wetland?	Yes	No X		
Wetland Hydrology Present? Yes _	No	X							
Remarks: Upland VEGETATION – Use scientific names of	plants								
Tree Stratum (Plot size: 30)	Absolute % Cover	DominantS pecies?	Indica Statu		Dominance Tes Number of Don That Are OBL, F Total Number o	ninant Species FACW, or FAC:		0	(A)
		= Total Co	ver		Species Across			1	(B)
Sapling/Shrub Stratum (Plot size: 15)	= 10tai co	vei		Percent of Dom That Are OBL, F	ninant Species			(A/B)
1.					Prevalence Ind	ov Workshoots			
		= Total Co	·····						
		_ = 10tal Co	ver		Total % Cover o	of:	Mult	iply by:	
Herb Stratum (Plot size: 5					OBL species	0%	x 1	0.0%	
1. Bromus inermis	95%	Υ	FAC	CU	FACW species	0%	x 2	0.0%	
2.					-	-			_
	95%	= Total Co			FAC species	0%	_ x3 _	0.0%	_
	9570	_ = 10tal C0	ivei		FACU species	95%	_ x 4 _	380.0%	_
Woody Vine Stratum (Plot size: 15	_)				UPL species	0%	_ x 5 _	0.0%	
					Column Totals:	95.0%	(A)	380%	(B)
1					Prevalence Ir	ndex = B/A =		4.00	
		_ = Total Co	ver		Hydrophytic Ve	·	-		
					N 1 - Rapid Te	est for Hydroph	ytic Veg	etation	
					N 2 - Domina	nce Test if >50	%		
					N 3 - Prevaler				
					N 4 - Morpho	ological Adapta narks or on a se c Hydrophytic ' ic soil and wetl	tions (Pro eperate s Vegetation and hydr	heet) on (Explain)
					Hydrophytic Vegetation Present?	Yes	No	x	
Remarks: Upland					1				

Depth	Matrix				Redox Fe	eatures						
(inches) Colo		%	Со	lor:	%	Type:	Loc:	Text	ture:	R	emarks:	
0-16 10YR		100%										
Гуре: C=Concentration	, D=Depleti	on, RM=R	educed	Matrix, CS	=Covered	or Coated Sar	nd Grains		Location:	PL=Pore Lir	ning, M=I	Matrix
Hydric Soil Indicators:	(Applicable	to all LRF	Rs. unles	s otherwi	se noted.			Indicators 1	or Problen	natic Hvdri	c Soils	
Histosol (A1)	(ed Matrix				Prairie Red	•		
Histic Epipedon (A	.2)			andy Gley andy Red		(34)			urface (S7)			
Black Histic (A3)	,			tripped M						Masses (F1	2)	
Hydrogen Sulfide	(A4)				cky Miner	al (F1)			_	k Surface (
Stratified Layers (-	, yed Matrix				(Explain in		,	
2 cm Muck (A10)	·				∕latrix (F3)				•			
Depleted Below D	ark Surface	(A11)			ς Surface (
Thick Dark Surface Sandy Mucky Min	e (A12)			Depleted D	ark Surfactions (I	ce (F7)		Indicators of wetland hy disturbed of	drology mi	ist be prese		SS
Restrictive Layer (if pro	esent):											
Type: None	•							Desire 6 "	Dunc - :: : 2	V		
	NA							Hydric Soil	rresent?	Yes	No	Х
Remarks:												
IYDROLOGY Wetland Hydrology Independent of the second sec	nimum of o	ne require	d; check	Water-9	pply) Stained Le Fauna (B:			Sec	_Surface So	licators (2 c oil Cracks (F Pattern (B1	36)	equired
Wetland Hydrology Inc Primary Indicators (mir Surface Water (A1)	nimum of o	ne require	d; check 	Water-S Aquatio	Stained Le	13)		Sec 	Surface So Drainage	oil Cracks (E	36) 0)	equired
Wetland Hydrology Inc Primary Indicators (mir Surface Water (A1) High Water Table (Saturation (A3) Water Marks (B1)	nimum of o	ne require	d; check —	Water-s Aquatio True Ac Hydrog	Stained Le Fauna (Ba Juatic Plan en Sulfide	13) ts (B14) Odor (C1)		Sec 	Surface So Drainage Dry-Seaso Crayfish B	oil Cracks (E Pattern (B1 on Water Ta Jurrows (C8	36) 0) ible (C2))	
Wetland Hydrology Inc Primary Indicators (mir Surface Water (A1) High Water Table (Saturation (A3) Water Marks (B1) Sediment Deposits	nimum of o	ne require	d; check	Water-S Aquatio True Ac Hydrog Oxidized	Stained Le Fauna (B: Juatic Plan en Sulfide Rhizosphe	ts (B14) Odor (C1) res on Living Ro	ots (C3)	Sec	Surface So Drainage Dry-Seaso Crayfish B Saturation	oil Cracks (E Pattern (B1 on Water Ta Surrows (C8 Visible on A	86) 0) able (C2)) erial Image	ery (C9)
Wetland Hydrology Inc Primary Indicators (mir Surface Water (A1) High Water Table (Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3)	nimum of or A2) (B2)	ne require	d; check 	Water-S Aquatic True Ac Hydrog Oxidized Presence	Stained Le Fauna (B: Juatic Plan en Sulfide Rhizosphe ce of Redu	ts (B14) Odor (C1) res on Living Ro ced Iron (C4)		Sec	Surface So Drainage Dry-Seaso Crayfish B Saturation Stunted o	oil Cracks (E Pattern (B1 on Water Ta Jurrows (C8 Visible on Ad r Stressed	36) 0) able (C2)) erial Image Plants (D	ery (C9)
Primary Indicators (min Surface Water (A1) High Water Table (Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust	nimum of or A2) (B2)	ne require	d; check — — — — —	Water-S Aquation True Ac Hydrog Oxidized Presence Recent	Stained Le Fauna (B: Juatic Plan en Sulfide Rhizosphe de of Redu Iron Redu	ts (B14) Odor (C1) res on Living Ro ced Iron (C4) ction in Tilled		Sec	Surface Son Drainage Dry-Season Crayfish B Saturation Stunted on Geomorp	oil Cracks (E Pattern (B1 on Water Ta surrows (C8 Visible on Ad r Stressed I hic Position	36) 0) able (C2)) erial Imago Plants (D (D2)	ery (C9)
Wetland Hydrology Inc Primary Indicators (mir Surface Water (A1) High Water Table (Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust Iron Deposits (B5)	(B2)		d; check — — — —	Water-S Aquation True Ac Hydrog Oxidized Presence Recent Thin Mo	Stained Le Fauna (B: Juatic Plan en Sulfide Rhizosphe de of Redu Iron Redu uck Surfac	ts (B14) Odor (C1) res on Living Ro ced Iron (C4) ction in Tilled e (C7)		Sec	Surface Son Drainage Dry-Season Crayfish B Saturation Stunted on Geomorp	oil Cracks (E Pattern (B1 on Water Ta Jurrows (C8 Visible on Ad r Stressed	36) 0) able (C2)) erial Imago Plants (D (D2)	ery (C9)
Wetland Hydrology Inc Primary Indicators (mir Surface Water (A1) High Water Table (Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Inundation Visible on	nimum of or A2) (B2) (B4) Aerial Image	ery (B7)		Water-S Aquatic True Ac Hydrog Oxidized Presenc Recent Thin Mo	Stained Le Fauna (B: Juatic Plan en Sulfide Rhizosphe de of Redu Iron Redu uck Surfac or Well Da	ts (B14) Odor (C1) res on Living Ro ced Iron (C4) ction in Tilled e (C7) ta (D9)		Sec	Surface Son Drainage Dry-Season Crayfish B Saturation Stunted on Geomorp	oil Cracks (E Pattern (B1 on Water Ta surrows (C8 Visible on Ad r Stressed I hic Position	36) 0) able (C2)) erial Imago Plants (D (D2)	ery (C9)
Wetland Hydrology Inc Primary Indicators (mir Surface Water (A1) High Water Table (Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust Iron Deposits (B5)	nimum of or A2) (B2) (B4) Aerial Image	ery (B7)	d; check	Water-S Aquatic True Ac Hydrog Oxidized Presenc Recent Thin Mo	Stained Le Fauna (B: Juatic Plan en Sulfide Rhizosphe de of Redu Iron Redu uck Surfac	ts (B14) Odor (C1) res on Living Ro ced Iron (C4) ction in Tilled e (C7) ta (D9)		Sec.	Surface Son Drainage Dry-Season Crayfish B Saturation Stunted on Geomorp	oil Cracks (E Pattern (B1 on Water Ta surrows (C8 Visible on Ad r Stressed I hic Position	36) 0) able (C2)) erial Imago Plants (D (D2)	ery (C9)
Wetland Hydrology Inc Primary Indicators (mir Surface Water (A1) High Water Table (Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Inundation Visible on Sparsely Vegetated C	(B2) (B4) Aerial Image	ery (B7) ice (B8)	-	Water-S Aquation True Ac Hydrog Oxidized Presence Recent Thin Mo Gauge of	Stained Le Fauna (Ba Juatic Plan en Sulfide Rhizosphe de of Redu Iron Redu Juck Surfac or Well Da Explain in	ts (B14) Odor (C1) res on Living Ro ced Iron (C4) ction in Tilled e (C7) ta (D9) Remarks)		Sec	Surface Son Drainage Dry-Season Crayfish B Saturation Stunted on Geomorp	oil Cracks (E Pattern (B1 on Water Ta surrows (C8 Visible on Ad r Stressed I hic Position	36) 0) able (C2)) erial Imago Plants (D (D2)	ery (C9)
Wetland Hydrology Inc Primary Indicators (mir Surface Water (A1) High Water Table (Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Inundation Visible on Sparsely Vegetated C	(B2) (B4) Aerial Image oncave Surfa	ery (B7) ice (B8)	X	Water-S Aquatic True Ac Hydrog Oxidized Presenc Recent Thin Mc Gauge C Other (I	Stained Le Fauna (B: Juatic Plan en Sulfide Rhizosphe e of Redu Iron Redu uck Surfac or Well Da Explain in	ts (B14) Odor (C1) res on Living Ro ced Iron (C4) ction in Tilled e (C7) ta (D9) Remarks)	Soils (C6)		Surface So Drainage Dry-Seaso Crayfish B Saturation Stunted o Geomorp FAC-Neut	oil Cracks (I Pattern (B1 on Water Ta Jurrows (C8 Visible on Ad r Stressed I hic Position ral Test (D5	86) 0) able (C2)) Prial Image Plants (D (D2)	ery (C9)
Wetland Hydrology Inc Primary Indicators (mir Surface Water (A1) High Water Table (Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Inundation Visible on Sparsely Vegetated C	(B2) (B4) Aerial Image oncave Surfa	ery (B7) lice (B8) No No		Water-S Aquation True Ac Hydrog Oxidized Presence Recent Thin Mo Gauge o Other (i) Depth (Stained Le Fauna (B: Juatic Plan en Sulfide Rhizosphe e of Redu Iron Redu uck Surfac or Well Da Explain in inches):	ts (B14) Odor (C1) res on Living Ro ced Iron (C4) ction in Tilled e (C7) ta (D9) Remarks)	Soils (C6)	Sec	Surface So Drainage Dry-Seaso Crayfish B Saturation Stunted o Geomorp FAC-Neut	oil Cracks (E Pattern (B1 on Water Ta surrows (C8 Visible on Ad r Stressed I hic Position	86) 0) able (C2)) Prial Image Plants (D (D2)	ery (C9)
Wetland Hydrology Inc Primary Indicators (mir Surface Water (A1) High Water Table (Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Inundation Visible on Sparsely Vegetated C	A2) (B2) (B4) Aerial Image oncave Surfare Yes _ Yes	ery (B7) lice (B8) No No		Water-S Aquation True Ac Hydrog Oxidized Presence Recent Thin Mic Gauge of Other (I) Depth (I) Depth (I)	stained Le Fauna (B: Juatic Plan en Sulfide Rhizosphe ee of Redu Iron Redu uck Surfac or Well Da Explain in inches): inches):	ts (B14) Odor (C1) res on Living Ro ced Iron (C4) ction in Tilled e (C7) ta (D9) Remarks) NA NA NA NA	Soils (C6) Wetland	I Hydrology I	Surface So Drainage Dry-Seaso Crayfish B Saturation Stunted o Geomorp FAC-Neut	oil Cracks (I Pattern (B1 on Water Ta Jurrows (C8 Visible on Ad r Stressed I hic Position ral Test (D5	86) 0) able (C2)) Prial Image Plants (D (D2)	ery (C9)
Wetland Hydrology Inc Primary Indicators (mir Surface Water (A1) High Water Table (Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Inundation Visible on Sparsely Vegetated C	A2) (B2) (B4) Aerial Image oncave Surfare Yes _ Yes	ery (B7) lice (B8) No No		Water-S Aquation True Ac Hydrog Oxidized Presence Recent Thin Mic Gauge of Other (I) Depth (I) Depth (I)	stained Le Fauna (B: Juatic Plan en Sulfide Rhizosphe ee of Redu Iron Redu uck Surfac or Well Da Explain in inches): inches):	ts (B14) Odor (C1) res on Living Ro ced Iron (C4) ction in Tilled e (C7) ta (D9) Remarks) NA NA NA NA	Soils (C6) Wetland	I Hydrology I	Surface So Drainage Dry-Seaso Crayfish B Saturation Stunted o Geomorp FAC-Neut	oil Cracks (I Pattern (B1 on Water Ta Jurrows (C8 Visible on Ad r Stressed I hic Position ral Test (D5	86) 0) able (C2)) Prial Image Plants (D (D2)	ery (C9)

Project/Site: Tatanka Ridge Wind Project		City/Cour	ntv: Dei	uel Count	v	Samp	ling Date	: 8/3/2	2018
Applicant/Owner: Buffalo Ridge III, LLC			' —		ate: SD		ling Point	-	
Investigator(s): E. Schwartz, P. Swartzinski			Sect	tion, Towr	nship, Range:		,,		
Landform (hillslope, terrace, etc.): depression	n	ļ	Local rel	lief (conca	ive, convex, none):	: Convex			
Slope (%): <5% Lat:			Long:			Datu	m: NAD	83	
Soil Map Unit Name:					N\	WI classification	:		
Are climatic/hydrologic conditions on the site ty	pical for this	time of year?	? Yes _	Χ	No(if n	o, explain in Re	marks.)		
Are Vegetation No , Soil No , or Hydro	ology No	significantly	disturb	ed? Are	e "Normal Circums	tances" present	? Yes	Χ	No
Are Vegetation <u>No</u> , Soil <u>No</u> , or Hydro	ology No	naturally pr	oblemat	tic? (if	needed, explain in	Remarks.)			
SUMMARY OF FINDINGS – Attach site	map show	ing sampli	ng poi	nt locati	ions, transects,	important fo	eautres	, etc.	
Hydrophytic Vegetation Present? Yes _	X No								
Hydric Soil Present? Yes	X No				pled Area	Van V N	1_		
Wetland Hydrology Present? Yes	X No	<u> </u>	'	within a V	Vetland?	Yes X N		_	
Remarks:			I						
PSS									
VEGETATION – Use scientific names of	•				1				
Tree Stratum (Plot size: 30)	Absolute		Indicat		Dominance Tes	t Worksheet:			
Tree stratum (Flot size. 30)	% Cover	pecies?	Status		Number of Don	ninant Species			
					That Are OBL, F	ACW, or FAC:		3	(A)
1					Total Number o	of Dominant			
		= Total Co	ver		Species Across	All Strata:	-	3	(B)
Sapling/Shrub Stratum (Plot size: 15)				Percent of Dom	•			(- (-)
1. Salix exiqua	<i>.</i> 95%	Υ	FACV	V	That Are OBL, F	ACW, or FAC:	10	0.0%	(A/B)
		<u>·</u>		<u> </u>	Dua valance Ind	ov Moulishooti			
2					Prevalence Ind				
	95%	= Total Co	ver		Total % Cover o	of:	Multip	ly by:	
Herb Stratum (Plot size: 5)					OBL species	0%	x 1	0.0%	
Phalaris arundinacea	45%	Υ	FACV	V	FACW species	155%	x 2	310.0%	
2. Urtica dioica	15%	Υ	FACV	V	FAC species	0%	x 3	0.0%	
3.					FACU species	0%	x 4	0.0%	
J		Tatal Ca				-	-		
	60%	= Total Co	ver		UPL species	0%	x 5	0.0%	
Woody Vine Stratum (Plot size: 15	_)				Column Totals:	155.0%	(A)	310%	(B)
					Prevalence Ir	ndex = B/A =	2	.00	
1.					Herdman berti a Ma		.		_
		= Total Co	ver		Hydrophytic Ve	egetation indica	itors:		
					<u>Y</u> 1 - Rapid Te	est for Hydrophy	tic Veget	ation	
					Y 2 - Dominai	nce Test if >50%	,)		
					Y 3 - Prevaler	nce Index is ≤ 3.0	0		
								ممدده ماهاد	artina
						logical Adaptati narks or on a se			orting
						c Hydrophytic V			1)
					Indicators of hydr	ic soil and wetla	nd hydro	logy mus	st be
					present, unless di	sturbed or prob	lematic		
					Hydrophytic				
					Vegetation				
					Present?	Yes X	_No		
Remarks: PSS									

Profile Description: (Desc	ribe to the	depth n	eeded t	o document the i	ndicator or co	nfirm the a	bsence of indicator	
Depth Ma	itrix			Redox F	eatures			
(inches) Color:	9/	6	Cole	or: %	Type:	Loc:	Texture:	Remarks:
0-16 10YR 2/1	. 10	0%					Clay Loam	
Type: C=Concentration, D:	=Depletion,	, RM=Red	duced N	1atrix, CS=Covere	d or Coated Sa	nd Grains	Location:	PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (Ap	plicable to	all LRRs	. unless	otherwise noted	1.)		Indicators for Probler	matic Hydric Soils
Histosol (A1)	•		Sa	ndy Gleyed Matri			Coast Prairie Red	loc (A16)
Histic Epipedon (A2)				ndy Redox (S5)	`		Dark Surface (S7)	
Black Histic (A3)	`			ripped Matrix (S6			Iron-Manganese	
Hydrogen Sulfide (A4)			amy Mucky Mine			Very Shallow Dar	
Stratified Layers (A5) 2 cm Muck (A10)				amy Gleyed Matr epleted Matrix (F3			Other (Explain in	Remarks)
Depleted Below Dark	Surface (A	11\		edox Dark Surface				
X Thick Dark Surface (A		11)		epleted Dark Surface				
Sandy Mucky Minera	•			edox Depressions			Indicators of hydroph wetland hydrology mu disturbed or problema	ust be present, unless
Restrictive Layer (if prese	nt):							
Type: None							Hydric Soil Present?	Yes X No
Depth (inches): NA							•	
Remarks: PSS						Ÿ		
HYDROLOGY								
Wetland Hydrology Indica	ators							
Primary Indicators (minim	um of one	required	; check a	all that apply)			Secondary Inc	dicators (2 or more required)
Surface Water (A1)				Water-Stained L	eaves (B9)		Surface S	oil Cracks (B6)
High Water Table (A2)				Aquatic Fauna (E	313)		Drainage	Pattern (B10)
Saturation (A3)				_True Aquatic Pla	nts (B14)		Dry-Seaso	on Water Table (C2)
Water Marks (B1)				_Hydrogen Sulfide	e Odor (C1)		Crayfish E	Burrows (C8)
Sediment Deposits (B2	<u>?</u>)			Oxidized Rhizosph	eres on Living Ro	oots (C3)	Saturation	Visible on Aerial Imagery (C9)
Drift Deposits (B3)				_Presence of Red	uced Iron (C4)		Stunted o	or Stressed Plants (D1)
Algal Mat or Crust (B4)			_Recent Iron Red	uction in Tilled	Soils (C6)	X Geomorp	hic Position (D2)
Iron Deposits (B5)				_Thin Muck Surfa	ce (C7)		X FAC-Neut	ral Test (D5)
χ Inundation Visible on Ae				Gauge or Well D				
Sparsely Vegetated Conc	ave Surface ((B8)		_Other (Explain ir	n Remarks)			
Field Observations:						<u> </u>		
Surface Water Present?	Yes	No	Х	Depth (inches):	NA			
Water Table Present?	Yes			Depth (inches):	NA	Wetland	d Hydrology Present?	Yes X No
Saturation Present?	Yes			Depth (inches):	NA		,	
(includes capillary fringe)								
Describe Recorded Data (s	tream gua	ge, moni	toring w	ell, aerial photos	, previous insp	ections), if	available:	
Remarks: PSS								

Hydric Soil Present? Yes _	/pical for this ology <u>No</u> ology <u>No</u>	time of year' significantly naturally pr ing sampli X X	Sec Local re Long: ? Yes / disturb oblema	X ped? / atic? (int loca	State: SD wnship, Range: cave, convex, none) No (if name "Normal Circums if needed, explain in	Sam : Linear Slo Dat WI classificatio o, explain in R tances" preser	rum: NA n: emarks.) nt? Yes	D83 X	60
Remarks:									
Upland									
VEGETATION – Use scientific names of	f plants Absolute	DominantS	Indiaa	****					
<u>Tree Stratum</u> (Plot size: <u>30</u>)	% Cover	pecies?	Status		Number of Don				
					That Are OBL, F	•		0	(A)
1	-				Total Number of			1	(B)
Souther (Should Street up 1914 time 145		= Total Co	ver		Species Across Percent of Dom				(D)
Sapling/Shrub Stratum (Plot size: 15)				That Are OBL, F	•		0.0%	(A/B)
1	- <u></u>				Prevalence Ind	ex Worksheet			
		= Total Co	ver		Total % Cover of			iply by:	
Herb Stratum (Plot size: 5)					OBL species	0%	x 1	0.0%	_
1. Bromus inermis	95%	Υ	FAC	:U	FACW species	0%	x 2	0.0%	<u> </u>
2	-	-			FAC species	0%	x 3	0.0%	_
	95%	= Total Co	ver		FACU species	95%	_ x 4	380.0%	_
Woody Vine Stratum (Plot size: 15	_)				UPL species	0%	_ x 5 _	0.0%	
					Column Totals:	95.0%	(A)	380%	(B)
1					Prevalence Ir	ndex = B/A =		4.00	
		= Total Co	ver		Hydrophytic Ve	egetation Indic	ators:		
					N 1 - Rapid Te	est for Hydropl	nytic Veg	etation	
					N 2 - Domina		, ,		
					N 3 - Prevaler	nce Index is ≤ 3	3.0		
					N 4 - Morpho data in Ren N Problemati Indicators of hydr present, unless di	narks or on a s c Hydrophytic ic soil and wet	eperate s Vegetation land hydi	sheet) on (Explain) rology mus)
					Hydrophytic Vegetation Present?	Yes	No	x	
Remarks: Upland									

Profile Description: (Des	cribe to the	depth needed	to document the	indicator or co	nfirm the a	bsence of indicator	
Depth M	atrix		Redox	Features			
(inches) Color:	9	6 C	olor: %	Type:	Loc:	Texture:	Remarks:
0-16 10YR 3,		0%				Clay Loam	
Type: C=Concentration, I)=Depletion.	RM=Reduced	Matrix. CS=Covere	ed or Coated Sa	nd Grains	Location: P	L=Pore Lining, M=Matrix
							-
Hydric Soil Indicators: (A	pplicable to			-		Indicators for Problems	•
Histosol (A1)			Sandy Gleyed Matr	rix (S4)		Coast Prairie Redo	c (A16)
Histic Epipedon (A2)			Sandy Redox (S5)	-1		Dark Surface (S7)	A (F12)
Black Histic (A3) Hydrogen Sulfide (A	4)		Stripped Matrix (S6 Loamy Mucky Mine			Iron-Manganese M Very Shallow Dark	
Stratified Layers (A5			Loamy Gleyed Mat			Other (Explain in R	
2 cm Muck (A10)	,		Depleted Matrix (F			other (Explain in it	icinario)
Depleted Below Dar	k Surface (A		Redox Dark Surface				
Thick Dark Surface (Depleted Dark Surf			Indicators of hydrophyt	tic vegetation and
Sandy Mucky Miner	al (S1)		Redox Depressions	s (F8)		wetland hydrology mus disturbed or problemat	st be present, unless
Restrictive Layer (if pres	ent):						
Type:						Hydric Soil Present?	Yes No X
Depth (inches):						Try arte som tresent.	<u></u>
Remarks: Upland					ı		
HYDROLOGY							
Wetland Hydrology Indi							. (2
Primary Indicators (minir	num of one	required; chec		(DO)		•	cators (2 or more required)
Surface Water (A1) High Water Table (A2)) \	=	Water-Stained I Aquatic Fauna (il Cracks (B6) attern (B10)
Saturation (A3)	-)		True Aquatic Pla			~	n Water Table (C2)
Water Marks (B1)		_	Hydrogen Sulfic			Crayfish Bu	
Sediment Deposits (I	32)	_	Oxidized Rhizosph	neres on Living Ro	oots (C3)	Saturation V	isible on Aerial Imagery (C9)
Drift Deposits (B3)			Presence of Rec	duced Iron (C4)		Stunted or	Stressed Plants (D1)
Algal Mat or Crust (B	4)	_	Recent Iron Rec		Soils (C6)		ic Position (D2)
Iron Deposits (B5)		(0.7)	Thin Muck Surfa	` ,		FAC-Neutra	al Test (D5)
Inundation Visible on A Sparsely Vegetated Cor	σ.		Gauge or Well I Other (Explain i				
Sparsely vegetated cor	cave Surface	_	Other (Explain)	ii Reillaiks)			
Field Observations:							
Surface Water Present?	Yes	No X	Depth (inches):	NA			
Water Table Present?	Yes	No X	Depth (inches):	NA	Wetland	d Hydrology Present?	Yes No X
Saturation Present?		No X	=	NA		,	
(includes capillary fringe)			·				
Describe Recorded Data	(stream gua	ge, monitoring	well, aerial photos	s, previous insp	ections), if a	available:	
Remarks:							

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC Investigator(s): E. Schwartz, P. Swartzinski Landform (hillslope, terrace, etc.): depression Slope (%): <5% Lat: Soil Map Unit Name: Are climatic/hydrologic conditions on the site ty Are Vegetation No , Soil No , or Hydro Are Vegetation No , Soil No , or Hydro SUMMARY OF FINDINGS — Attach site in Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes Wetland Hydrology Present? Yes Remarks:	pical for this ology No ology No map showi	time of year? significantly naturally pro ing samplii	Sect Local rel Long: P Yes disturbe oblemat	Sion, Towief (conc X ed? Ar ic? (if	No (if re "Normal Circums needed, explain ir	Sampl : Convex Datur WI classification: no, explain in Rer stances" present	m: NAD83 marks.) P Yes autres, e	X No	
VEGETATION – Use scientific names of Tree Stratum (Plot size: 30)	plants Absolute % Cover	DominantS pecies?	Indicat Status	or	Dominance Te Number of Doi	minant Species			
1. Sapling/Shrub Stratum (Plot size: 15)	= Total Cov	ver		That Are OBL, I Total Number Species Across Percent of Don That Are OBL, I	of Dominant All Strata: ninant Species	2	(B	
1. Herb Stratum (Plot size: 5) 1. Spartina pectinata 2. Phalaris arundinacea 3. Schoenoplectus acutus 4.	45% 30% 15% 90%	= Total Cov	FACW FACW OBL	/	Prevalence Inc Total % Cover of OBL species FACW species FAC species FACU species UPL species Column Totals:	15% 75% 0% 0% 0%	x 2 15 x 3 0 x 4 0 x 5 0	5.0% 60.0% 0.0% 0.0%	(B)
Woody Vine Stratum (Plot size: 15		_ = Total Cov	ver		Hydrophytic V Y 1 - Rapid T Y 2 - Domina Y 3 - Prevale Y 4 - Morpho data in Rer	est for Hydrophy ince Test if >50% nce Index is ≤ 3.0 plogical Adaptatic marks or on a sepic Hydrophytic Veric soil and wetla	tors: tic Vegetations (Provide erate shee egetation (End hydrolog	ion e support t) explain)	ting
Remarks: PEM					Hydrophytic Vegetation Present?	Yes <u>X</u>	No	_	

/· · · 	Matrix				Redox F	eatures		<u> </u>			
inches) (Color:	%	C	Color:	%	Type:	Loc:		exture:		Remarks:
0-16 10	YR 2/1	100%						Cl	ay Loam		
ype: C=Concentra	tion, D=Deplet	ion, RM=l	Reduced	d Matrix, CS	S=Covered	l or Coated Sa	nd Grains		Location:	PL=Pore l	_ining, M=Matrix
ydric Soil Indicato	ors: (Applicable	e to all LR	RRs, unle	ess otherw	ise noted.)		Indicato	rs for Probler	natic Hyd	ric Soils
Histosol (A1) Histic Epipedo Black Histic (A Hydrogen Sulf Stratified Laye 2 cm Muck (A: Depleted Belo X Thick Dark Sur	3) ide (A4) rs (A5) LO) w Dark Surface face (A12)	e (A11)		Sandy Gley Sandy Red Stripped M Loamy Mu Loamy Gle Depleted M Redox Dar Depleted E Redox Dep	ox (S5) Natrix (S6) cky Miner yed Matri Matrix (F3) k Surface Dark Surfa	ral (F1) x (F2)) (F6) ce (F7)		Dari Iron Ver Oth Indicator wetland	st Prairie Red k Surface (S7) n-Manganese y Shallow Dar er (Explain in rs of hydroph hydrology mid d or problema	Masses (F k Surface Remarks) ytic vegeta	(TF12) ation and
Restrictive Layer (i Type: None Depth (inches):									oil Present?	Yes	X No
Remarks:	<u> </u>										
	y Indicators										
Wetland Hydrolog		ne requir	ed; chec	ck all that a	pply)				Secondary Inc	dicators (2	or more required
Wetland Hydrolog	(minimum of o	ne requir	red; chec		pply) Stained Le	eaves (B9)		9	Secondary Inc Surface S	-	
Wetland Hydrologorimary Indicators	(minimum of o (A1)	ne requir	red; cheo	Water-		, ,		9		oil Cracks	(B6)
Vetland Hydrolog Primary Indicators Surface Water High Water Tak X Saturation (A3)	(minimum of o (A1) ble (A2)	ne requir	red; chec	Water- Aquatio True Ac	Stained Le Fauna (B quatic Plar	13) nts (B14)		· · · · · · · · · · · · · · · · · · ·	Surface Some Drainage Dry-Season	oil Cracks Pattern (E on Water	(B6) 310) Table (C2)
Vetland Hydrolog Primary Indicators Surface Water High Water Tak X Saturation (A3) Water Marks (I	(minimum of o (A1) ble (A2)	ne requir	red; chec - - -	Water- Aquatio True Ac Hydrog	Stained Le Fauna (B quatic Plar en Sulfide	13) nts (B14) Odor (C1)		• • •	Surface S Drainage Dry-Seaso Crayfish E	oil Cracks Pattern (E on Water Burrows (C	(B6) 310) Table (C2) C8)
Vetland Hydrolog Primary Indicators Surface Water High Water Tak X Saturation (A3) Water Marks (I Sediment Depo	(minimum of o (A1) ole (A2) B1) osits (B2)	ne requir	red; chec - - - -	Water- Aquatio True Ac Hydrog Oxidized	Stained Le Fauna (B quatic Plar en Sulfide I Rhizosphe	13) nts (B14) Odor (C1) eres on Living Ro	oots (C3)	- - -	Surface Some Drainage Dry-Seaso Crayfish E	oil Cracks Pattern (E on Water Burrows (C Visible on	(B6) B10) Table (C2) C8) Aerial Imagery (C9)
Wetland Hydrology Primary Indicators Surface Water High Water Tak X Saturation (A3) Water Marks (I Sediment Depo	(minimum of o (A1) ole (A2) 31) osits (B2) B3)	ne requir	red; ched - - - -	Water- Aquation True Act Hydrog Oxidized Presend	Stained Le Fauna (B quatic Plar en Sulfide I Rhizosphe ce of Redu	13) hts (B14) Odor (C1) eres on Living Ro acced Iron (C4)		- - - -	Surface Some Drainage Dry-Seaso Crayfish E Saturation Stunted co	oil Cracks Pattern (E on Water Burrows (C Visible on or or Stressec	(B6) B10) Table (C2) C8) Aerial Imagery (C9) B Plants (D1)
High Water Tak X Saturation (A3) Water Marks (I Sediment Depo Drift Deposits (Algal Mat or Cr	(minimum of o (A1) ole (A2) B1) osits (B2) B3) ust (B4)	ne requir	red; chec - - - - - -	Water- Aquation True Act Hydrog Oxidized Present Recent	Stained Le Fauna (B quatic Plar en Sulfide I Rhizosphe ce of Redu Iron Redu	13) hts (B14) Odor (C1) eres on Living Rouced Iron (C4) action in Tilled		- - - -	Surface S Drainage Dry-Sease Crayfish E Saturation Stunted c X Geomorp	oil Cracks Pattern (E on Water Burrows (C Visible on or Stressed hic Positic	(B6) B10) Table (C2) C8) Aerial Imagery (C9) d Plants (D1) on (D2)
Wetland Hydrology Primary Indicators Surface Water High Water Tak X Saturation (A3) Water Marks (I Sediment Depo	(minimum of o (A1) ole (A2) B1) osits (B2) B3) ust (B4) 35) e on Aerial Imag	ery (B7)		Water Aquatio True Ao Hydrog Oxidizeo Present Recent Thin M Gauge	Stained Le Fauna (B quatic Plar en Sulfide I Rhizosphe ce of Redu Iron Redu uck Surfac or Well Da	nts (B14) c Odor (C1) eres on Living Ro ciced Iron (C4) ection in Tilled		- - - -	Surface Some Drainage Dry-Seaso Crayfish E Saturation Stunted co	oil Cracks Pattern (E on Water Burrows (C Visible on or Stressed hic Positic	(B6) B10) Table (C2) C8) Aerial Imagery (C9) d Plants (D1) on (D2)
Vetland Hydrology Primary Indicators Surface Water High Water Tak X Saturation (A3) Water Marks (I Sediment Deposits (I Algal Mat or Cr Iron Deposits (I Inundation Visible	(minimum of o (A1) ole (A2) B1) osits (B2) B3) ust (B4) 35) e on Aerial Imag	ery (B7)	red; chec - - - - - -	Water Aquatio True Ao Hydrog Oxidizeo Present Recent Thin M Gauge	Stained Le Fauna (B quatic Plar en Sulfide I Rhizosphe ce of Redu Iron Redu uck Surfac or Well Da	13) hts (B14) Odor (C1) eres on Living Ro aced Iron (C4) action in Tilled ere (C7) ata (D9)		- - - -	Surface S Drainage Dry-Sease Crayfish E Saturation Stunted c X Geomorp	oil Cracks Pattern (E on Water Burrows (C Visible on or Stressed hic Positic	(B6) B10) Table (C2) C8) Aerial Imagery (C9) d Plants (D1) on (D2)
Vetland Hydrology Primary Indicators Surface Water High Water Tak X Saturation (A3) Water Marks (I Sediment Depo Drift Deposits (I Algal Mat or Cr Iron Deposits (I Inundation Visibl Sparsely Vegetat	(minimum of o (A1) ole (A2) B3) ust (B2) B3) ust (B4) 35) e on Aerial Imag ed Concave Surfa	ery (B7) ace (B8)	- - - - - -	Water Aquatio True Ao Hydrog Oxidizeo Preseno Recent Thin Mi Gauge Other (Stained Le Fauna (B quatic Plar en Sulfide I Rhizosphe ce of Redu Iron Redu uck Surfac or Well Da	13) hts (B14) Odor (C1) eres on Living Ro aced Iron (C4) action in Tilled ere (C7) ata (D9)		- - - -	Surface S Drainage Dry-Sease Crayfish E Saturation Stunted c X Geomorp	oil Cracks Pattern (E on Water Burrows (C Visible on or Stressed hic Positic	(B6) B10) Table (C2) C8) Aerial Imagery (C9) d Plants (D1) on (D2)
Wetland Hydrology Primary Indicators Surface Water High Water Tak X Saturation (A3) Water Marks (E) Sediment Deposits (E) Algal Mat or Cr Iron Deposits (E) Inundation Visible Sparsely Vegetat Sield Observations Gurface Water Pres	(minimum of o (A1) ole (A2) B3) ust (B2) B3) ust (B4) 35) e on Aerial Imag ed Concave Surfa	ery (B7) ace (B8)	- - - - - -	Water Aquatio True Ao Hydrog Oxidizeo Preseno Recent Thin Mi Gauge Other (Stained Le Fauna (B quatic Plar en Sulfide I Rhizosphe ce of Redu Iron Redu uck Surfac or Well Da Explain in	nts (B14) r Odor (C1) res on Living Ro uced Iron (C4) action in Tilled te (C7) ata (D9) Remarks)	Soils (C6)	- - - -	Surface S Drainage Dry-Sease Crayfish E Saturation Stunted c X Geomorp	oil Cracks Pattern (E on Water Burrows (C Visible on or Stressec hic Positio ral Test (E	(B6) B10) Table (C2) C8) Aerial Imagery (C9) d Plants (D1) on (D2)
Primary Indicators Surface Water High Water Tak X Saturation (A3) Water Marks (I Sediment Depo Drift Deposits (I Iron Deposits (I Inundation Visible	(minimum of o (A1) ole (A2) B31) osits (B2) B3) ust (B4) 35) e on Aerial Imag ed Concave Surfi	ery (B7) ace (B8)	- - - - - - - - - - - - - - - - - - -	Water Aquatio True Ao Hydrog Oxidized Presend Recent Thin M Gauge Other (Depth (Stained Le Fauna (B quatic Plar en Sulfide I Rhizosphe ce of Redu Iron Redu uck Surfac or Well Da Explain in	nts (B14) c Odor (C1) eres on Living Ro aced Iron (C4) action in Tilled ace (C7) ata (D9) Remarks)	Soils (C6)	- - - -	Surface S Drainage Dry-Seaso Crayfish E Saturation Stunted c X Geomorp X FAC-Neut	oil Cracks Pattern (E on Water Burrows (C Visible on or Stressec hic Positio ral Test (E	(B6) B10) Table (C2) C8) Aerial Imagery (C9) D Plants (D1) D (D2) D5)

Hydric Soil Present? Yes _	pical for this plogy <u>No</u> plogy <u>No</u> map show	time of year' significantly naturally pr ing sampli X	Section Sectio	x ed? A ic? (i	itate: SD ynship, Range: cave, convex, none) No (if n re "Normal Circums f needed, explain in	Elinear Slower S	rum: NA n: emarks.) nt? Yes	D83 X s, etc.	
VEGETATION – Use scientific names of Tree Stratum (Plot size: 30)	plants Absolute % Cover	DominantS pecies?	Indicato Status	or	Dominance Tes				
1)	= Total Co	ver		That Are OBL, F Total Number of Species Across Percent of Dom That Are OBL, F	FACW, or FAC: of Dominant All Strata:		2	(A) (B) (A/B)
1		= Total Co	ver		Prevalence Ind	ex Worksheet		iply by:	_
1. Bromus inermis 2. Phleum pratense 3.	65% 25%	Y Y	FACU FACU		OBL species FACW species FAC species	0% 0% 0%	_ x1 _ x2 _ x3 _	0.0% 0.0% 0.0%	
Woody Vine Stratum (Plot size: 15	90%	= Total Co	ver		FACU species UPL species Column Totals: Prevalence II		_ x 4 _ x 5 _ (A)	360.0% 0.0% 360% 4.00	 (B)
1.		= Total Co	ver		Hydrophytic Ve N 1 - Rapid Te N 2 - Domina N 3 - Prevaler N 4 - Morpho	egetation Indicest for Hydropl nce Test if >50 nce Index is \leq 3 logical Adapta narks or on a s c Hydrophytic ic soil and wet	cators: nytic Vego % 8.0 tions (Pro eperate s Vegetatio	etation ovide suppo heet) on (Explain)
Remarks: UPLAND					Present?	Yes	No	<u>X</u>	

Profile Description: (Desc	ribe to the	depth n	eeded t	o document the i	indicator or co	nfirm the a	bsence of indicator	
Depth Ma	ntrix			Redox F	eatures			
(inches) Color:	9	6	Cole	or: %	Type:	Loc:	Texture:	Remarks:
0-16 10YR 2/1	. 10	0%					Clay Loam	
Type: C=Concentration, D=	=Depletion,	, RM=Red	duced M	latrix, CS=Covere	d or Coated Sa	nd Grains	Location:	PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (Ap							Indicators for Problem	matic Hydric Soils
Histosol (A1)	piicabic to	dir Entits		ndy Gleyed Matri			Coast Prairie Rec	•
Histic Epipedon (A2)				ndy Redox (S5)	IX (34)		Dark Surface (S7)	` '
Black Histic (A3)				ripped Matrix (S6)		Iron-Manganese	
Hydrogen Sulfide (A4)			amy Mucky Mine			Very Shallow Dar	
Stratified Layers (A5)	•			amy Gleyed Matr			Other (Explain in	
2 cm Muck (A10)			De	epleted Matrix (F3	3)			
Depleted Below Dark	Surface (A	11)	Re	dox Dark Surface	(F6)			
X Thick Dark Surface (A	12)		De	epleted Dark Surfa	ace (F7)		Indicators of hydroph	ytic vegetation and
Sandy Mucky Minera	l (S1)		Re	edox Depressions	(F8)		wetland hydrology medisturbed or problem	
Restrictive Layer (if prese	nt):							
Type: None							Hydric Soil Present?	Yes X No
Depth (inches): NA							rryante son rresent.	165 <u>X</u> 160
Remarks: UPLAND						U		
HYDROLOGY								
Wetland Hydrology Indica	ators							
Primary Indicators (minim	um of one	required	; check a	all that apply)			Secondary Inc	dicators (2 or more required)
Surface Water (A1)				_Water-Stained L	eaves (B9)		Surface S	oil Cracks (B6)
High Water Table (A2)	1			Aquatic Fauna (~ · ·	Pattern (B10)
Saturation (A3)				_True Aquatic Pla				on Water Table (C2)
Water Marks (B1)	_,			_Hydrogen Sulfid	, ,	. (62)		Burrows (C8)
Sediment Deposits (B2	<u>?)</u>			Oxidized Rhizosph		oots (C3)		Visible on Aerial Imagery (C9)
Drift Deposits (B3)	١			Presence of Red	` '	Soils (CC)		or Stressed Plants (D1)
Algal Mat or Crust (B4 Iron Deposits (B5))			Recent Iron Red Thin Muck Surfa		Solis (Co)		hic Position (D2) ral Test (D5)
Inundation Visible on Ae	rial Imagery	(B7)		Gauge or Well D	` '		FAC-Neut	iai iest (D3)
Sparsely Vegetated Conc	• ,			Other (Explain in				
				_ ` `	·			
Field Observations:	-							
Surface Water Present?	Yes	No	Χ	Depth (inches):	NA			
Water Table Present?	Yes			Depth (inches):	NA	Wetland	d Hydrology Present?	YesNoX
Saturation Present? (includes capillary fringe)	Yes	No _	X	Depth (inches):	NA			
Describe Recorded Data (s	tream guar	ge, moni	toring w	vell, aerial photos	, previous insp	ections), if	available:	
Remarks:					· · · · · · · · · · · · · · · · · · ·	.,		

Project/Site: Tatanka Ridge Wind Project		City/Cour	ntv: Deu	uel County		Samı	pling Date	: 10/5	/2018
Applicant/Owner: Buffalo Ridge III, LLC					te: SD		pling Poin		
Investigator(s): Paul SWARTZINSKI			Secti		ship, Range:		,,		
Landform (hillslope, terrace, etc.): <u>channel</u>			Local reli	ief (conca	/e, convex, none):	-			
Slope (%): <5% Lat:			Long:				um: <u>NAD</u>	83	
Soil Map Unit Name:		·····	2			l classification			
Are climatic/hydrologic conditions on the site ty Are Vegetation No , Soil No , or Hydro								Y	No
Are Vegetation No , Soil No , or Hydro					eeded, explain in R		t: Tes		
SUMMARY OF FINDINGS – Attach site							eautres	etc.	
					, in an is every in			,	
			Is	s the Samı	oled Area				
				vithin a W	_	res X I	No		
	X No								
Remarks: NWI WETLAND ABUTTING PERENNIAL STREAM									
INVITWEILAND ABOTTING PERENNIAL STREAM									
\									
VEGETATION – Use scientific names of		DominantS	Indiant						
<u>Tree Stratum</u> (Plot size: 30)	Absolute % Cover	pecies?	Status	.01	Dominance Test	Worksheet:			
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	P			Number of Domii	•		2	(A)
1.					That Are OBL, FA				(A)
	-	= Total Co	ver		Total Number of Species Across Al			2	(B)
Conling/Chruh Stratum / Diet size, 15		= 10tal co	VCI		Percent of Domin				. ,
Sapling/Shrub Stratum (Plot size: 15)				That Are OBL, FA	•	10	0.0%	(A/B)
1					Prevalence Index	Worksheet:			
		_ = Total Co	ver		Total % Cover of:		Multip	oly by:	
Herb Stratum (Plot size: 5)					OBL species	20%	x 1	20.0%	<u>—</u>
1. Spartina gracilis	35%	Υ	FACW	/	FACW species	70%	x 2	140.0%	
2. Phalaris arundinacea	35%	Υ	FACW	/	FAC species	5%	_ ^ x3	15.0%	
3. Carex aquatilis	15%	N	OBL		•	-	_		_
4. Schoenoplectus acutus	5%	N	OBL		FACU species	0%	_ x 4	0.0%	
5. Rumex crispus	5%	N	FAC		UPL species	0%	_ x 5	0.0%	
6					Column Totals:	95.0%	_ (A)	175%	(B)
	95%	= Total Co	ver		Prevalence Ind	ex = B/A =	1	.84	
Woody Vine Stratum (Plot size: 15)				Hydrophytic Veg	etation Indic	ators:		
					Y 1 - Rapid Test	t for Hydroph	ytic Vege	tation	
1					Y 2 - Dominano	e Test if >509	%		
		_ = Total Co	ver		Y 3 - Prevalenc	e Index is ≤ 3	.0		
					Y 4 - Morpholo	gical Adaptat	ions (Prov	vide supp	orting
					data in Rema		•	•	
					N Problematic I		-		-
					ndicators of hydric present, unless dist			ology mus	st be
					o. eserre, urness uist	a. bea or prof			
					Hydrophytic				
					Vegetation				
					Present?	Yes X	No		
Remarks: PEM ABUTTING STREAM AND STOC	K POND								
INCINGING. FLIVI ADDITING STREAM AND STOC	KFUND								

Profile Descr	iption: (Describe	to the depth	needed to docu	ıment the indi	icator or cor	nfirm the a	bsence of indicator	
Depth	Matrix	(Redox Fea	tures			
(inches)	Color:	%	Color:	%	Type:	Loc:	Texture:	Remarks:
0-20	10YR 2/1	100%					Clay Loam	
Type: C=Cond	centration, D=De	pletion, RM=F	educed Matrix,	CS=Covered o	r Coated Sar	nd Grains	Location: PL=	Pore Lining, M=Matrix
Hydric Soil In	dicators: (Appli	able to all LR	Rs, unless other	wise noted.)			Indicators for Problemati	c Hydric Soils
Histosol Histic Ep Black His Hydroge Stratified 2 cm Mu X Depleted Thick Da	(A1) pipedon (A2)	face (A11)	Sandy Gl Sandy Re Stripped Loamy M Loamy G X Depleted Redox D Depleted	eyed Matrix (S edox (S5) Matrix (S6) Iucky Mineral leyed Matrix ((F1) F2) 6) (F7)		Coast Prairie Redoc (Dark Surface (S7) Iron-Manganese Mas Very Shallow Dark Su Other (Explain in Ren Indicators of hydrophytic wetland hydrology must be disturbed or problematic.	A16) sses (F12) urface (TF12) narks) vegetation and pe present, unless
Type: <u>N</u> Depth (in							Hydric Soil Present? Y	es <u>X</u> No
Primary Indic X Surface V	Irology Indicator ators (minimum		Wate	: apply) r-Stained Leav tic Fauna (B13			Secondary IndicatSurface Soil C X Drainage Patt	
X Saturatio Water M Sediment Drift Dep Algal Mat Iron Depo	on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4)		True Hydro Oxidiz Prese Rece Thin	Aquatic Plants ogen Sulfide O ed Rhizospheres ence of Reduce nt Iron Reducti Muck Surface (e or Well Data r (Explain in Re	(B14) dor (C1) s on Living Ro ed Iron (C4) ion in Tilled (C7) (D9)		Dry-Season W Crayfish Burro Saturation Visib	Vater Table (C2) Dows (C8) Dole on Aerial Imagery (C9) ressed Plants (D1) Position (D2)
Field Observa Surface Water Water Table I Saturation Pr (includes cap	er Present? Y Present? Y esent? Y	/es X No /es X No	Depti	n (inches): <u>s</u>	3 5 0			res <u>X</u> No
Remarks:	o. aca bata (stret	5 4 4 5 5 1110	ormg wen, de	p.1.5105, pi				

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC Investigator(s): Paul SWARTZINSKI		City/Cour			nty State: <u>SD</u> vnship, Range:		npling Dan		/2018 02
Landform (hillslope, terrace, etc.): Slope (%): <5% Lat:			Local reli	ef (con	cave, convex, none	· —		D83	
Soil Map Unit Name: Are climatic/hydrologic conditions on the site ty Are Vegetation No , Soil No , or Hydro Are Vegetation No , Soil No , or Hydro	ology No ology No	significantly naturally pro	disturbe oblemati	ed? A ic? (i	No(if re "Normal Circun f needed, explain	in Remarks.)	Remarks.) nt? Yes	X	No
SUMMARY OF FINDINGS – Attach site	•		ng poin	it ioca	tions, transect	s, important	reautre	s, etc.	
		X	Is	the Sa	mpled Area				
	X No				Wetland?	Yes	No X		
	No	X							
Remarks: Upland point									
VEGETATION – Use scientific names of	plants								
<u>Tree Stratum</u> (Plot size: <u>30</u>)	Absolute % Cover	DominantS pecies?	Indicato Status	or	Number of Do	est Worksheet: ominant Species , FACW, or FAC:	5	0	(A)
1	-		-			r of Dominant		2	(B)
Sapling/Shrub Stratum (Plot size: 15)	_ = Total Co	ver			is All Strata: ominant Species , FACW, or FAC:			(A/B)
1					Prevalence In	idex Workshee	::		
	-	= Total Co	ver		Total % Cover	of:	Mult	iply by:	
Herb Stratum (Plot size: 5)					OBL species	0%	_ x 1	0.0%	
1. Bromus inermis	45%	Y	FACU		FACW species	5%	x 2	10.0%	
Pascopyrum smithii Helianthus maximiliani	15% 10%	Y N	FACU UPL		FAC species	0%	x 3	0.0%	_
4. Spartina gracilis	5%	N	FACW		FACU species	60%	x 4	240.0%	
5.					UPL species	10%	x 5	50.0%	
J	750/	Tatal Car			Column Total	s: 75.0%	(A)	300%	(B)
	75%	_ = Total Co	ver		Prevalence	Index = B/A =		4.00	
Woody Vine Stratum (Plot size: 15)				Hydrophytic '	Vegetation Indi	cators:		<u>–</u>
1					N 1 - Rapid	Test for Hydrop	hytic Veg	etation	
		_ = Total Co	ver		N 2 - Domir	nance Test if >50)%		
					N 3 - Preval	ence Index is ≤	3.0		
					data in Re		seperate s Vegetati tland hyd	sheet) on (Explain rology mus	n)
					Hydrophytic Vegetation Present?	Yes	No	x	
Remarks: Upland									

	needed to docum	nent the indicator or con	ifirm the ab	sence of indicator
Depth Matrix		Redox Features		
(inches) Color: %	Color:	% Type:	Loc:	Texture: Remarks:
0-20 10YR 2/1 100%				Clay Loam
Type: C=Concentration, D=Depletion, RM=R	Reduced Matrix, C:	S=Covered or Coated San	nd Grains	Location: PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (Applicable to all LR				Indicators for Problematic Hydric Soils
Histosol (A1)		yed Matrix (S4)		Coast Prairie Redoc (A16)
Histic Epipedon (A2)	Sandy Red			Dark Surface (S7)
Black Histic (A3)	Stripped M			Iron-Manganese Masses (F12)
Hydrogen Sulfide (A4)		icky Mineral (F1)		Very Shallow Dark Surface (TF12)
Stratified Layers (A5)		yed Matrix (F2)		Other (Explain in Remarks)
2 cm Muck (A10)	Depleted I			
Depleted Below Dark Surface (A11)	Redox Dar	k Surface (F6)		
X Thick Dark Surface (A12)	Depleted [Dark Surface (F7)		Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Redox Dep	pressions (F8)		wetland hydrology must be present, unless disturbed or problematic.
Restrictive Layer (if present):				
Type: None				Hydric Soil Present? Yes X No
Depth (inches): NA				, and som reseme
Remarks: Upland			ļ	
UNDDOLOGY				
4 V L JK () () (3 V				
Wetland Hydrology Indicators	ed; check all that a	apply)		Secondary Indicators (2 or more required)
		ipply) Stained Leaves (B9)		Secondary Indicators (2 or more required) Surface Soil Cracks (B6)
Wetland Hydrology Indicators Primary Indicators (minimum of one require	Water-			
Wetland Hydrology Indicators Primary Indicators (minimum of one requireSurface Water (A1)	Water- Aquatio	Stained Leaves (B9)		Surface Soil Cracks (B6)
Wetland Hydrology Indicators Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water- Aquatio True Ao Hydrog	Stained Leaves (B9) c Fauna (B13) quatic Plants (B14) en Sulfide Odor (C1)		Surface Soil Cracks (B6) Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
Wetland Hydrology Indicators Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water- Aquatio True Ao Hydrog Oxidizeo	Stained Leaves (B9) c Fauna (B13) quatic Plants (B14) cen Sulfide Odor (C1) d Rhizospheres on Living Roo	ots (C3)	Surface Soil Cracks (B6) Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Water- Aquatio True Ao Hydrog Oxidizeo	Stained Leaves (B9) c Fauna (B13) quatic Plants (B14) en Sulfide Odor (C1) d Rhizospheres on Living Rocce of Reduced Iron (C4)		Surface Soil Cracks (B6) Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
Wetland Hydrology Indicators Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Water- Aquatio True Ao Hydrog Oxidizeo Preseno	Stained Leaves (B9) C Fauna (B13) Quatic Plants (B14) Sen Sulfide Odor (C1) Shit Rhizospheres on Living Roo Ce of Reduced Iron (C4) Iron Reduction in Tilled S		Surface Soil Cracks (B6) Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Wetland Hydrology Indicators Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Water- Aquation True Act Hydrog Oxidizect Present Recent Thin M	Stained Leaves (B9) c Fauna (B13) quatic Plants (B14) gen Sulfide Odor (C1) d Rhizospheres on Living Roc ce of Reduced Iron (C4) Iron Reduction in Tilled S uck Surface (C7)		Surface Soil Cracks (B6) Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Water- Aquatio True Ao Hydrog Oxidizeo Present Recent Thin M Gauge	Stained Leaves (B9) c Fauna (B13) quatic Plants (B14) gen Sulfide Odor (C1) d Rhizospheres on Living Roc ce of Reduced Iron (C4) Iron Reduction in Tilled Suck Surface (C7) or Well Data (D9)		Surface Soil Cracks (B6) Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Wetland Hydrology Indicators Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)	Water- Aquatio True Ao Hydrog Oxidizeo Present Recent Thin M Gauge	Stained Leaves (B9) c Fauna (B13) quatic Plants (B14) gen Sulfide Odor (C1) d Rhizospheres on Living Roc ce of Reduced Iron (C4) Iron Reduction in Tilled S uck Surface (C7)		Surface Soil Cracks (B6) Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Wetland Hydrology Indicators Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)	Water- Aquatio True Ao Hydrog Oxidizeo Present Recent Thin M Gauge	Stained Leaves (B9) c Fauna (B13) quatic Plants (B14) gen Sulfide Odor (C1) d Rhizospheres on Living Roc ce of Reduced Iron (C4) Iron Reduction in Tilled Suck Surface (C7) or Well Data (D9)		Surface Soil Cracks (B6) Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Wetland Hydrology Indicators Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations:	Water- Aquation True Act Hydrog Oxidized Presence Recent Thin M Gauge Other (Stained Leaves (B9) c Fauna (B13) quatic Plants (B14) gen Sulfide Odor (C1) d Rhizospheres on Living Roc ce of Reduced Iron (C4) Iron Reduction in Tilled Suck Surface (C7) or Well Data (D9)		Surface Soil Cracks (B6) Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Wetland Hydrology Indicators Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No	Water- Aquation True Act Hydrog Oxidized Presence Recent Thin M Gauge Other (Stained Leaves (B9) c Fauna (B13) quatic Plants (B14) gen Sulfide Odor (C1) d Rhizospheres on Living Roc ce of Reduced Iron (C4) Iron Reduction in Tilled S uck Surface (C7) or Well Data (D9) Explain in Remarks)	Soils (C6)	Surface Soil Cracks (B6) Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Wetland Hydrology Indicators Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Saturation Present? Yes No Saturat	Water- Aquation True Act Hydrog Oxidized Presence Recent Thin M Gauge Other (Stained Leaves (B9) c Fauna (B13) quatic Plants (B14) gen Sulfide Odor (C1) d Rhizospheres on Living Roc ce of Reduced Iron (C4) Iron Reduction in Tilled S uck Surface (C7) or Well Data (D9) Explain in Remarks)	Soils (C6)	Surface Soil Cracks (B6) Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
Wetland Hydrology Indicators Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Saturation Present? Yes No Saturat	Water- Aquation True Ao Hydrog Oxidized Present Recent Thin M Gauge Other (Stained Leaves (B9) c Fauna (B13) quatic Plants (B14) gen Sulfide Odor (C1) d Rhizospheres on Living Roc ce of Reduced Iron (C4) Iron Reduction in Tilled S uck Surface (C7) or Well Data (D9) Explain in Remarks) (inches): NA (inches): NA	Soils (C6) Wetland	Surface Soil Cracks (B6) Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5) Hydrology Present? Yes NoX
Wetland Hydrology Indicators Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Saturation Present? Yes No Saturat	Water- Aquation True Ao Hydrog Oxidized Present Recent Thin M Gauge Other (Stained Leaves (B9) c Fauna (B13) quatic Plants (B14) gen Sulfide Odor (C1) d Rhizospheres on Living Roc ce of Reduced Iron (C4) Iron Reduction in Tilled S uck Surface (C7) or Well Data (D9) Explain in Remarks) (inches): NA (inches): NA	Soils (C6) Wetland	Surface Soil Cracks (B6) Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5) Hydrology Present? Yes NoX

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC Investigator(s): Paul SWARTZINSKI		City/Cour		St	y rate: <u>SD</u> nship, Range:		ling Date		
Landform (hillslope, terrace, etc.): channel		Į			ave, convex, none):	Convex			
Slope (%): <5% Lat:							m: NAI	D83	
Soil Map Unit Name:			<u> </u>		NV	VI classification	:		
Are climatic/hydrologic conditions on the site ty	pical for this	time of year?	? Yes	Х	No (if no	o, explain in Re	marks.)		
Are Vegetation No , Soil No , or Hydro	ology No	significantly	disturbed	d? Ar	e "Normal Circumst	tances" present	? Yes	X	No
Are Vegetation $\underline{ \text{No}}$, Soil $\underline{ \text{No}}$, or Hydro	ology No	naturally pro	oblematic	c? (if	needed, explain in	Remarks.)			
SUMMARY OF FINDINGS – Attach site	map show	ing samplii	ng point	t locat	ions, transects,	important fo	eautres	s, etc.	
					,	• • • • • • • • • • • • • • • • • • • •			
			ls t	the San	pled Area				
_			wi	ithin a V	Vetland?	Yes X N	lo	_	
Wetland Hydrology Present? Yes	X No								
Remarks: PEM WETLAND									
VEGETATION – Use scientific names of	plants								
Torra Structure (Districts 20	Absolute	DominantS	Indicato	r	Dominance Tes	t Worksheet:			
Tree Stratum (Plot size: 30)	% Cover	pecies?	Status		Number of Dom	inant Species			
					That Are OBL, F	•		2	(A)
1					Total Number o	f Dominant			
		= Total Co	ver		Species Across A	All Strata:		2	(B)
Sapling/Shrub Stratum (Plot size: 15)				Percent of Dom That Are OBL, F	•	1	00.0%	(A/B)
1.					Prevalence Inde	ex Worksheet:			
		= Total Co	ver	_			N A l+i	nly by	
Herb Stratum (Plot size: 5)					Total % Cover o			ply by:	<u> </u>
	FF0/	V	EA CVA/		OBL species	15%	x 1	15.0%	_
1. Phalaris arundinacea	55%	Y	FACW		FACW species	85%	x 2	170.0%	
Spartina gracilis Helianthus maximiliani	20%	Y 	FACW UPL	_	FAC species	0%	x 3	0.0%	
4. Bromus inermis	-		FACU		FACU species	10%	x 4	40.0%	
5. Typha angustifolia	10% 8%	N	OBL	_	UPL species	20%	x 5	100.0%	
6. Carex aquatilis	7%	N	OBL	_	Column Totals:	130.0%	(A)	325%	(B)
o. Carex aquatins	7 70		OBL						(b)
7				_	Prevalence In	dex = B/A =		2.50	
	130%	= Total Co	ver		Hydrophytic Ve	getation Indica	tors:		
Woody Vine Stratum (Plot size: 15	_)				Y 1 - Rapid Te	st for Hudrophy	rtic Vogo	station	
								tation	
1					Y 2 - Dominar				
		= Total Co	vor		Y 3 - Prevalen	ce Index is ≤ 3.0	0		
		_ = Total Co	vei		Y 4 - Morphol data in Rem N Problematic	arks or on a sep Hydrophytic V	perate s egetatio	heet) on (Explain	n)
					present, unless dis				
					Hydrophytic Vegetation Present?	Yes X	_No		
Remarks: PEM					1				

Depth	Matrix				Redox Fe	atures				_	
inches)	Color:	%		Color:	%	Type:	Loc:	Te	xture:	R	temarks:
0-20	10YR 2/1	100%	,					Cla	y Loam		
ype: C=Conc	entration, D=De	oletion, RN	∕I=Reduce	ed Matrix, CS	=Covered o	or Coated Sai	nd Grains		Location:	PL=Pore Lii	ning, M=Matrix
ydric Soil Inc	dicators: (Applic	able to all	LRRs, un	less otherwi	se noted.)			Indicators	for Problen	natic Hydri	c Soils
Black His Hydroge Stratified 2 cm Mu Depleted X Thick Da	ipedon (A2) tic (A3) n Sulfide (A4) I Layers (A5)			Sandy Gley Sandy Redo Stripped M Loamy Muo Loamy Gley Depleted M Redox Dark Depleted D Redox Dep	ox (S5) atrix (S6) cky Minera red Matrix fatrix (F3) c Surface (F ark Surface	I (F1) (F2) :6) e (F7)		Dark Iron- Very Othe	t Prairie Red Surface (S7) Manganese Shallow Dar er (Explain in s of hydrophy ydrology mu or problema	Masses (F1 k Surface (Remarks) ytic vegetat ust be preso	TF12) tion and
estrictive La Type: <u>No</u> Depth (inc									il Present?		X No
YDROLOG	Y										
Vetland Hyd	rology Indicator										
Vetland Hyd	rology Indicator ators (minimum		uired; ch			(00)		Se			or more required
Vetland Hyd rimary Indica X Surface W	rology Indicator ators (minimum /ater (A1)		uired; ch	Water-S	tained Lea			_	Surface So	oil Cracks (I	B6)
Vetland Hyderimary Indica X Surface W X High Wate	rology Indicator ators (minimum /ater (A1) er Table (A2)		uired; ch	Water-S Aquatic	tained Lea Fauna (B1	3)		_	Surface So X Drainage	oil Cracks (I Pattern (B1	B6) L0)
Vetland Hydromary Indicator X Surface Work X High Wator X Saturation	rology Indicator ators (minimum /ater (A1) er Table (A2) n (A3)		uired; ch	Water-S Aquatic True Aq	tained Lea Fauna (B1 uatic Plant	3) s (B14)		_	Surface So X Drainage Dry-Seaso	oil Cracks (I Pattern (B1 on Water Ta	B6) L0) able (C2)
Vetland Hydromery Indicated Warface Warface Warface Warface Warface Water Mater Mate	rology Indicator ators (minimum /ater (A1) er Table (A2) n (A3) arks (B1)		uired; ch	Water-S Aquatic True Aq Hydroge	tained Lea Fauna (B1 uatic Plant en Sulfide (3) s (B14) Odor (C1)	ots (C3)	_	Surface So X Drainage Dry-Seaso Crayfish B	oil Cracks (I Pattern (B1 on Water Ta Jurrows (C8	B6) L0) able (C2) B)
Vetland Hydrometric National N	rology Indicator ators (minimum /ater (A1) er Table (A2) in (A3) arks (B1) Deposits (B2)		uired; ch	Water-S Aquatic True Aq Hydroge Oxidized	tained Lea Fauna (B1 uatic Plant en Sulfide (Rhizosphere	3) s (B14) Odor (C1) es on Living Ro	ots (C3)	_	Surface So X Drainage Dry-Seaso Crayfish B Saturation	oil Cracks (I Pattern (B1 on Water Ta Jurrows (C8 Visible on A	B6) L0) able (C2) B) erial Imagery (C9)
Wetland Hydromany Indicator X Surface Work High Water X Saturation Water Mater Material Ma	rology Indicator ators (minimum /ater (A1) er Table (A2) n (A3) arks (B1) Deposits (B2) osits (B3)		uired; ch	Water-S Aquatic True Aq Hydroge Oxidized Presence	tained Lea Fauna (B1 uatic Plant en Sulfide (Rhizosphere e of Reduc	3) s (B14) Odor (C1) es on Living Ro ed Iron (C4)			Surface So X Drainage Dry-Seaso Crayfish B Saturation Stunted o	oil Cracks (I Pattern (B1 on Water Ta Jurrows (C8 Visible on A r Stressed	B6) L0) able (C2) B) erial Imagery (C9) Plants (D1)
Wetland Hydroperimary Indica X Surface W X High Water X Saturation Water Ma Sediment Drift Depo	rology Indicator ators (minimum /ater (A1) er Table (A2) n (A3) arks (B1) Deposits (B2) osits (B3) or Crust (B4)		uired; ch	Water-S Aquatic True Aq Hydroge Oxidized Presenc Recent	tained Lea Fauna (B1 uatic Plant en Sulfide (Rhizosphere e of Reduc ron Reduc	3) s (B14) Odor (C1) es on Living Ro ed Iron (C4) tion in Tilled		- - - - -	Surface Sox X Drainage Dry-Seaso Crayfish B Saturation Stunted ox X Geomorp	oil Cracks (I Pattern (B1 on Water Ta Jurrows (C8 Visible on A r Stressed hic Positior	B6) L0) able (C2) B) erial Imagery (C9) Plants (D1) n (D2)
Primary Indica X Surface W X High Wate X Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundation	rology Indicator ators (minimum /ater (A1) er Table (A2) n (A3) arks (B1) Deposits (B2) osits (B3) or Crust (B4)	of one req)	Water-S Aquatic True Aq Hydroge Oxidized Presenc Recent I Thin Mu Gauge C	tained Lea Fauna (B1 uatic Plant en Sulfide (Rhizosphere e of Reduc	3) s (B14) Odor (C1) es on Living Ro ed Iron (C4) tion in Tilled (C7) a (D9)		- - - - -	Surface So X Drainage Dry-Seaso Crayfish B Saturation Stunted o	oil Cracks (I Pattern (B1 on Water Ta Jurrows (C8 Visible on A r Stressed hic Positior	B6) L0) able (C2) B) erial Imagery (C9) Plants (D1) n (D2)
Vetland Hydromary Indicator X Surface Work Mater	rology Indicator ators (minimum /ater (A1) er Table (A2) in (A3) arks (B1) Deposits (B2) posits (B3) or Crust (B4) posits (B5) I Visible on Aerial I egetated Concave	of one req)	Water-S Aquatic True Aq Hydroge Oxidized Presenc Recent I Thin Mu Gauge C	tained Lea Fauna (B1) uatic Plant en Sulfide (Rhizosphere e of Reduc ron Reduc ick Surface or Well Dat	3) s (B14) Odor (C1) es on Living Ro ed Iron (C4) tion in Tilled (C7) a (D9)		- - - - -	Surface Sox X Drainage Dry-Seaso Crayfish B Saturation Stunted ox X Geomorp	oil Cracks (I Pattern (B1 on Water Ta Jurrows (C8 Visible on A r Stressed hic Positior	B6) L0) able (C2) B) erial Imagery (C9) Plants (D1) n (D2)
Vetland Hydromary Indica X Surface W X High Water X Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundation Sparsely Ve	rology Indicator rators (minimum /ater (A1) er Table (A2) n (A3) arks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) Visible on Aerial Legetated Concave	of one req)	Water-S Aquatic True Aq Hydroge Oxidized Presenc Recent Thin Mu Gauge C	tained Lea Fauna (B1: uatic Plant en Sulfide (Rhizosphere e of Reduc ron Reduc rok Surface or Well Dat explain in R	3) s (B14) Odor (C1) es on Living Ro ed Iron (C4) tion in Tilled (C7) a (D9)		- - - - -	Surface Sox X Drainage Dry-Seaso Crayfish B Saturation Stunted ox X Geomorp	oil Cracks (I Pattern (B1 on Water Ta Jurrows (C8 Visible on A r Stressed hic Positior	B6) L0) able (C2) B) erial Imagery (C9) Plants (D1) n (D2)
Wetland Hydromany Indica X Surface W X High Water X Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundation Sparsely Ve	rology Indicator ators (minimum /ater (A1) er Table (A2) in (A3) arks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) in Visible on Aerial I egetated Concave	of one req magery (B7) Surface (B8))) No	Water-S Aquatic True Aq Hydroge Oxidized Presenc Recent Thin Mu Gauge C Other (E	rtained Lea Fauna (B1) uatic Plant en Sulfide (Rhizosphere e of Reduc ron Reduc ron Reduc rok Surface or Well Dat explain in R	3) s (B14) Odor (C1) es on Living Ro ed Iron (C4) tion in Tilled (C7) a (D9) emarks)	Soils (C6)	- - - - -	Surface Solve Solv	oil Cracks (I Pattern (B1 on Water Ta Jurrows (CE Visible on Ai r Stressed hic Position ral Test (DS	B6) L0) able (C2) B) erial Imagery (C9) Plants (D1) n (D2)
Wetland Hydromary Indicator X Surface W X High Water X Saturation Water Mater Mater Sediment Drift Depote Algal Mater Iron Depote Inundation	rology Indicator rators (minimum /ater (A1) er Table (A2) in (A3) erks (B1) Deposits (B2) osits (B3) or Crust (B4) esits (B5) in Visible on Aerial I egetated Concave resent?	magery (B7) Surface (B8)	No No	Water-S Aquatic True Aq Hydroge Oxidized Presenc Recent Thin Mu Gauge C Other (E	rtained Lea Fauna (B1) uatic Plant en Sulfide (Rhizosphere e of Reduc ron Reduc rok Surface or Well Dat explain in R	3) s (B14) Odor (C1) es on Living Ro ed Iron (C4) tion in Tilled (C7) a (D9) emarks)	Soils (C6)	- - - - 3	Surface Solve Solv	oil Cracks (I Pattern (B1 on Water Ta Jurrows (CE Visible on Ai r Stressed hic Position ral Test (DS	B6) L0) able (C2) B) erial Imagery (C9) Plants (D1) n (D2)

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC		City/Cour	nty: <u>Deu</u>		y ate: SD		pling Da	-	/2018 04
Investigator(s): Paul SWARTZINSKI			Secti		nship, Range:		,,		
	ing channel	ı			ive, convex, none)	: Linear Slo			
Slope (%): <5% Lat:		_					tum: NA	D83	
Soil Map Unit Name:			_			WI classificatio	n:		
Are climatic/hydrologic conditions on the site ty	pical for this	time of year?	? Yes	Х	No (if r	no, explain in R	emarks.)		
Are Vegetation No , Soil No , or Hydr	ology No	significantly	disturbe	ed? Are	e "Normal Circums	stances" presei	nt? Yes	X	No
Are Vegetation <u>No</u> , Soil <u>No</u> , or Hydr	ology No	naturally pro	oblemati	ic? (if	needed, explain in	Remarks.)			
SUMMARY OF FINDINGS – Attach site	map show	ing sampli	ng poin	nt locati	ions, transects,	, important	feautre	es, etc.	
Г		X				•			
			Is	the Sam	pled Area				
_			w	ithin a V	Vetland?	Yes	No X	<u> </u>	
	No	X							
Remarks:									
Upland									
VEGETATION – Use scientific names of	plants								
	Absolute	DominantS	Indicate	or	Dominance Tes	ct Markshaati			
<u>Tree Stratum</u> (Plot size: <u>30</u>)	% Cover	pecies?	Status						
					Number of Dor	•		0	(A)
1.					That Are OBL, F				(八)
		= Total Co			Total Number of Species Across			1	(B)
		= 10tal Co	ver		Percent of Dom				(-)
Sapling/Shrub Stratum (Plot size: 15)				That Are OBL, F	•		0.0%	(A/B)
1.					Prevalence Ind	ex Worksheet	•		
		= Total Co	ver					tiply by:	
Herb Stratum (Plot size: 5)					Total % Cover of			tiply by:	_
	050/	V	FACIL		OBL species	5%	_ x 1	5.0%	_
1. Bromus inermis	85%	Y	FACU		FACW species	0%	x 2	0.0%	
2. Helianthus maximiliani	15%	N N	UPL		FAC species	0%	x 3	0.0%	
3. Solidago canadensis	10%	N	FACU		FACU species	95%	x 4	380.0%	
4. Eutrochium maculatum	5%	N	OBL		UPL species	15%	x 5	75.0%	_
5	-				Column Totals:				(D)
	115%	= Total Co	ver				(A)	460%	(B)
Woody Vine Stratum (Plot size: 15)				Prevalence I	ndex = B/A =		4.00	_
					Hydrophytic Vo	egetation Indi	cators:		
1.						_			
		- Total Co			N 1 - Rapid To	, ,	, ,	getation	
	-	_ = Total Co	ver		N 2 - Domina	nce Test if >50	%		
					N 3 - Prevale	nce Index is ≤ 3	3.0		
					N 4 - Morpho	ological Adapta	tions (Pr	ovide supp	orting
						narks or on a s			
					N Problemati		-		-
					Indicators of hydr present, unless di				st be
					present, unless u	sturbed or pro	Diematic	•	
					Hydrophytic				
					Vegetation	Yes	No	Y	
					Present?	169	''\0		
Remarks: Upland					I				
nemarks. Opianu									

Depth (inches) Color: 0-20 10YR 3/2	atrix						
			Redo	ox Features			
0-20 10YR 3/		<u> </u>	Color:	% Type:	Loc:	Texture:	Remarks:
	100	0%				Clay Loam	
Type: C=Concentration, D)=Depletion,	RM=Reduce	d Matrix, CS=Cov	ered or Coated Sar	nd Grains	Location: I	PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (A	pplicable to	all LRRs, unl	ess otherwise no	ted.)		Indicators for Problem	atic Hydric Soils
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4 Stratified Layers (A5) 2 cm Muck (A10) Depleted Below Dark Thick Dark Surface (A5) Sandy Mucky Minera	4)) k Surface (A1 A12)		Sandy Gleyed M. Sandy Redox (S5 Stripped Matrix Loamy Mucky M. Loamy Gleyed M. Depleted Matrix Redox Dark Surfa Depleted Dark S. Redox Depression	atrix (S4)) (S6) lineral (F1) latrix (F2) (F3) ace (F6) urface (F7)		Coast Prairie Redo Dark Surface (S7) Iron-Manganese I Very Shallow Dark Other (Explain in I	oc (A16) Masses (F12) Surface (TF12) Remarks) tic vegetation and
Restrictive Layer (if prese	ent):					disturbed or problema	
Type: None						Hydric Soil Present?	Yes X No
Depth (inches): NA	4					•	
IYDROLOGY							
HYDROLOGY Wetland Hydrology Indic	ators						
Wetland Hydrology Indic		equired; che	eck all that apply)			Secondary Ind	icators (2 or more required)
Wetland Hydrology Indic Primary Indicators (minim Surface Water (A1)	num of one r	equired; che		d Leaves (B9)			icators (2 or more required) il Cracks (B6)
Wetland Hydrology Indic Primary Indicators (minim Surface Water (A1) High Water Table (A2	num of one r	equired; che	Water-Staine Aquatic Faun	a (B13)		Surface So Drainage F	il Cracks (B6) Pattern (B10)
Wetland Hydrology Indic Primary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3)	num of one r	equired; che	Water-Staine Aquatic Faun True Aquatic	a (B13) Plants (B14)		Surface So Drainage F Dry-Seaso	il Cracks (B6) Pattern (B10) n Water Table (C2)
Wetland Hydrology Indic Primary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1)	num of one r	equired; che	Water-Staine Aquatic Faun True Aquatic Hydrogen Sul	a (B13) Plants (B14) Ifide Odor (C1)	otc (C2)	Surface So Drainage F Dry-Seaso Crayfish B	il Cracks (B6) Pattern (B10) n Water Table (C2) urrows (C8)
Wetland Hydrology Indic Primary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B	num of one r	equired; che	Water-Staine Aquatic Faun True Aquatic Hydrogen Sul Oxidized Rhizo	a (B13) Plants (B14) Ifide Odor (C1) spheres on Living Ro	ots (C3)	Surface So Drainage F Dry-Seaso Crayfish Bo Saturation N	il Cracks (B6) Pattern (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9)
Wetland Hydrology Indic Primary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3)	num of one r 2) 32)	equired; che	Water-Staine Aquatic Faun True Aquatic Hydrogen Sul Oxidized Rhizo Presence of F	a (B13) Plants (B14) Ifide Odor (C1) spheres on Living Ro Reduced Iron (C4)		Surface So Drainage F Dry-Seaso Crayfish B Saturation V	il Cracks (B6) Pattern (B10) In Water Table (C2) Furrows (C8) Visible on Aerial Imagery (C9) Stressed Plants (D1)
Wetland Hydrology Indic Primary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B	num of one r 2) 32)	equired; che	Water-Staine Aquatic Faun True Aquatic Hydrogen Sul Oxidized Rhizo Presence of F	a (B13) Plants (B14) Ifide Odor (C1) spheres on Living Ro Reduced Iron (C4) Reduction in Tilled		Surface So Drainage F Dry-Seaso Crayfish Be Saturation V Stunted or	il Cracks (B6) Pattern (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9)
Wetland Hydrology Indic Primary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4	num of one r 2) 32) 4) erial Imagery (B7)	Water-Staine Aquatic Faun True Aquatic Hydrogen Sul Oxidized Rhizo Presence of F Recent Iron R Thin Muck Su	a (B13) Plants (B14) Ifide Odor (C1) spheres on Living Ro Reduced Iron (C4) Reduction in Tilled urface (C7)		Surface So Drainage F Dry-Seaso Crayfish Be Saturation V Stunted or	il Cracks (B6) Pattern (B10) In Water Table (C2) Furrows (C8) Fisible on Aerial Imagery (C9) Fistressed Plants (D1) Fision (D2)
Wetland Hydrology Indic Primary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Ae Sparsely Vegetated Cond	num of one r 2) 32) 4) erial Imagery (B7)	Water-Staine Aquatic Faun True Aquatic Hydrogen Sul Oxidized Rhizo Presence of F Recent Iron R Thin Muck Su Gauge or We	a (B13) Plants (B14) Ifide Odor (C1) spheres on Living Ro Reduced Iron (C4) Reduction in Tilled urface (C7) Il Data (D9)		Surface So Drainage F Dry-Seaso Crayfish Be Saturation V Stunted or	il Cracks (B6) Pattern (B10) In Water Table (C2) Furrows (C8) Fisible on Aerial Imagery (C9) Fistressed Plants (D1) Fision (D2)
Wetland Hydrology Indic Primary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Ae Sparsely Vegetated Cond	num of one r 2) 32) 4) erial Imagery (icave Surface (B7) B8)	Water-Staine Aquatic Faun True Aquatic Hydrogen Sul Oxidized Rhizo Presence of F Recent Iron F Thin Muck Su Gauge or We Other (Explai	a (B13) Plants (B14) Ifide Odor (C1) spheres on Living Ro Reduced Iron (C4) Reduction in Tilled Irface (C7) Il Data (D9) n in Remarks)		Surface So Drainage F Dry-Seaso Crayfish Be Saturation V Stunted or	il Cracks (B6) Pattern (B10) In Water Table (C2) Furrows (C8) Fisible on Aerial Imagery (C9) Tistressed Plants (D1) Fision Position (D2)
Wetland Hydrology Indic Primary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Ae Sparsely Vegetated Cond	num of one r 2) 32) 4) erial Imagery (acave Surface (B7) B8) No X	Water-Staine Aquatic Faun True Aquatic Hydrogen Sul Oxidized Rhizo Presence of F Recent Iron R Thin Muck Su Gauge or We Other (Explai	a (B13) Plants (B14) Ifide Odor (C1) spheres on Living Ro Reduced Iron (C4) Reduction in Tilled urface (C7) II Data (D9) n in Remarks)	Soils (C6)	Surface So Drainage F Dry-Seaso Crayfish Bi Saturation N Geomorph FAC-Neutr	il Cracks (B6) Pattern (B10) In Water Table (C2) Furrows (C8) Fisible on Aerial Imagery (C9) Tistressed Plants (D1) Fision Position (D2)
Wetland Hydrology Indic Primary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Ae Sparsely Vegetated Cond Field Observations: Surface Water Present? Water Table Present?	num of one r 2) 32) 4) erial Imagery (icave Surface (Yes Yes	B7) B8) NoX NoX	Water-Staine Aquatic Faun True Aquatic Hydrogen Sul Oxidized Rhizo Presence of F Recent Iron F Thin Muck Su Gauge or We Other (Explai	a (B13) Plants (B14) Ifide Odor (C1) spheres on Living Ro Reduced Iron (C4) Reduction in Tilled Irface (C7) Il Data (D9) In in Remarks) s): NA NA	Soils (C6)	Surface So Drainage F Dry-Seaso Crayfish Be Saturation V Stunted or	il Cracks (B6) Pattern (B10) In Water Table (C2) Furrows (C8) Fisible on Aerial Imagery (C9) Fistressed Plants (D1) Fision Position (D2)
Wetland Hydrology Indic Primary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Ae	num of one r 2) 32) 4) erial Imagery (ncave Surface (Yes Yes Yes	B7) B8) No X No X No X	Water-Staine Aquatic Faun True Aquatic Hydrogen Sul Oxidized Rhizo Presence of F Recent Iron F Thin Muck Su Gauge or We Other (Explai	a (B13) Plants (B14) Ifide Odor (C1) spheres on Living Ro Reduced Iron (C4) Reduction in Tilled Irface (C7) II Data (D9) In in Remarks) s): NA NA NA NA	Soils (C6) Wetland I	Surface So Drainage F Dry-Seaso Crayfish Bi Saturation N Geomorph FAC-Neutr	il Cracks (B6) Pattern (B10) In Water Table (C2) Furrows (C8) Patisible on Aerial Imagery (C9) To Stressed Plants (D1) Fic Position (D2) Fall Test (D5)

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC		City/Cour	nty: <u>Deu</u>		/ ate: SD		ing Date: ing Point		
Investigator(s): Paul SWARTZINSKI			Secti	ion, Towr	iship, Range:		,,		
Landform (hillslope, terrace, etc.): <u>channel</u>		I	Local reli	ief (conca	ve, convex, none): Convex			
Slope (%): <5% Lat:			Long:			Datu	m: NAD8	33	
Soil Map Unit Name:					N	IWI classification:			
Are climatic/hydrologic conditions on the site ty						no, explain in Rer			
Are Vegetation <u>No</u> , Soil <u>No</u> , or Hydro							? Yes	X	No
Are Vegetation No , Soil No , or Hydro	ology No	naturally pro	oblemati	ic? (if	needed, explain ir	n Remarks.)			
SUMMARY OF FINDINGS – Attach site	map show	ing sampli	ng poir	nt locati	ons, transects	, important fe	autres,	etc.	
Hydrophytic Vegetation Present? Yes	X No					-			
Hydric Soil Present? Yes	X No		Is	s the Sam	pled Area				
Wetland Hydrology Present? Yes	X No		w	vithin a V	/etland?	Yes X N	o	_	
	<u> </u>								
Remarks: PEM									
VEGETATION – Use scientific names of	plants								
Troo Stratum (Plot size: 20	Absolute	DominantS		or	Dominance Te	st Worksheet:			
<u>Tree Stratum</u> (Plot size: <u>30</u>)	% Cover	pecies?	Status		Number of Do	minant Species			
					That Are OBL,	•		2	(A)
1					Total Number	of Dominant			
		= Total Co	ver		Species Across	All Strata:		2	(B)
Sapling/Shrub Stratum (Plot size: 15)				Percent of Dor That Are OBL,	ninant Species FACW, or FAC:	100	0.0%	(A/B)
1.					Provolence Inc	dex Worksheet:			
		= Total Co	ver						
Harle Chartena / Diet siese 5		= 10tal co	VCI		Total % Cover	of:	Multip	ly by:	
Herb Stratum (Plot size: 5					OBL species	35%	x 1	35.0%	_
Phalaris arundinacea	55%	Υ	FACW		FACW species	82%	x 2	164.0%	
2. Typha angustifolia	35%	Υ	OBL		FAC species	0%	x 3	0.0%	
3. Spartina gracilis	20%	N	FACW		FACU species	0%	x 4	0.0%	
4. Helianthus maximiliani	10%	N	UPL		UPL species	10%	x 5	50.0%	_
5. Urtica dioica	7%	N	FACW		•				
6					Column Totals		(A)	249%	(B)
	127%	= Total Co	ver		Prevalence I	Index = B/A =	1.	96	<u></u>
Woody Vine Stratum (Plot size: 15)				Hydrophytic V	egetation Indica	tors:		
					V 1 - Ranid T	est for Hydrophy	tic Veget	ation	
1							Ū	ation	
		= Total Co	ver			ance Test if >50%			
		_				ence Index is ≤ 3.0			
					data in Re	ological Adaptation marks or on a sep iic Hydrophytic Vo	erate she	eet)	_
					Indicators of hyd		-		-
					present, unless d	listurbed or prob	ematic		
					Hydrophytic Vegetation				
					Present?	Yes <u>X</u>	No		
Remarks: PEM									

Profile Descri	ption: (Describe	to the depth	needed to doci	ıment the ind	icator or co	nfirm the a	bsence of indicator	
Depth	Matrix			Redox Fea	tures			
(inches)	Color:	%	Color:	%	Type:	Loc:	Texture: Remarks:	
0-20	10YR 2/1	100%					Clay Loam	
Type: C-Conc	entration, D=De	oletion RM-R	aducad Matriy	CS-Covered o	r Coated Sai	nd Grains	Location: PL=Pore Lining, M=Matrix	
	· · ·	•			- Coated Sai	ila Grains		
-	dicators: (Applic	able to all LKK			2.41		Indicators for Problematic Hydric Soils	
Histosol ((A1) ipedon (A2)			leyed Matrix (S edox (S5)	54)		Coast Prairie Redoc (A16) Dark Surface (S7)	
Black His				Matrix (S6)			Iron-Manganese Masses (F12)	
	n Sulfide (A4)			lucky Mineral	(F1)		Very Shallow Dark Surface (TF12)	
	Layers (A5)		-	leyed Matrix (Other (Explain in Remarks)	
2 cm Mu	ck (A10)		XDepleted	d Matrix (F3)				
l —	l Below Dark Sur	face (A11)		ark Surface (F6	-			
	rk Surface (A12) ucky Mineral (S1)		d Dark Surface epressions (F8			Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
Postrictivo La	yer (if present):						·	
Type: No								
Depth (inc							Hydric Soil Present? Yes X No	=
, ,	· —							
Remarks: P	EM							
Primary Indica X Surface W X High Wate X Saturation Water Ma Sediment Drift Depo	rology Indicators ators (minimum of ater (A1) er Table (A2) n (A3) arks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5)	of one require	Wate AquaTrueHydreOxidizPreseReceThin	er-Stained Leav tic Fauna (B13 Aquatic Plants ogen Sulfide O ted Rhizosphere ence of Reduce nt Iron Reduct Muck Surface	s) s (B14) sdor (C1) s on Living Ro ed Iron (C4) ion in Tilled (C7)		Secondary Indicators (2 or more required Surface Soil Cracks (B6) Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) X Geomorphic Position (D2) X FAC-Neutral Test (D5)	
	r Present? Y Present? Y esent? Y		Othe	h (inches):		Wetland	d Hydrology Present? Yes <u>X</u> No	-
Describe Reco	orded Data (strea	ım guage, mor	nitoring well, ae	rial photos, pr	evious inspe	ections), if a	available:	
Remarks:								

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC		City/Cour	nty: <u>Deue</u>		y tate: SD		npling Dat	-	/2018 .06
Investigator(s): Paul SWARTZINSKI			Sectio	n. Tow	nship, Range:		, ,	-	
Landform (hillslope, terrace, etc.): channel		ı			ave, convex, none	e): Linear S			
Slope (%): <5% Lat:						· · · · · · · · · · · · · · · · · · ·	itum: NA	D83	
Soil Map Unit Name:			- 0			NWI classificati			
Are climatic/hydrologic conditions on the site ty	pical for this	time of year?	? Yes	Χ		no, explain in I			
Are Vegetation No , Soil No , or Hydro									No
Are Vegetation No , Soil No , or Hydro					needed, explain				-
SUMMARY OF FINDINGS – Attach site							feautre	s etc	
	No	•	ing point	locat	ions, transcet	s, important	icautic	.s, ctc.	
			Is t	the San	npled Area				
		X			Vetland?	Yes	No X		
Wetland Hydrology Present? Yes _	No	X							
Remarks: UPLAND									
VEGETATION – Use scientific names of	•								
Tree Stratum (Plot size: 30)	Absolute % Cover	DominantS		r	Dominance T	est Worksheet	:		
/ Intersize: 30 /	% Cover	pecies?	Status		Number of Do	ominant Specie	S		
					That Are OBL,	, FACW, or FAC:		1	(A)
1	-			_	Total Number			2	(5)
		= Total Co	ver		Species Acros			2	(B)
Sapling/Shrub Stratum (Plot size: 15)					minant Species , FACW, or FAC		50.0%	(A/B)
1.					Prevalence In	ndex Workshee	t:		
		= Total Co	ver		Total % Cover			iply by:	
Herb Stratum (Plot size: 5)					OBL species	0%		0.0%	
1. Bromus inermis	65%	Υ	FACU		· ·		_ x1		
Phalaris arundinacea	30%	Y	FACW		FACW species	30%	x 2	60.0%	_
-	3070		171011	_	FAC species	0%	x 3	0.0%	
3		· 		_	FACU species	65%	x 4	260.0%	
	95%	= Total Co	ver		UPL species	0%	x 5	0.0%	
Woody Vine Stratum (Plot size: 15	_)				Column Total	s: 95.0%	(A)	320%	(B)
					Prevalence	Index = B/A =	` ′ =	3.37	` '
1.					Frevalence	muex = b/A =		3.37	<u></u> -
		= Total Co	ver		Hydrophytic '	Vegetation Ind	icators:		
			vei		N 1 - Ranid	Test for Hydror	hytic Veg	etation	
					·	, ,	, ,	Ctation	
						nance Test if >5			
					N 3 - Preval	ence Index is ≤	3.0		
					data in Re	nological Adapt emarks or on a itic Hydrophytic dric soil and we	seperate s Vegetati	sheet) on (Explaii	n)
					present, unless	disturbed or pr	oblematic		
					Hydrophytic Vegetation Present?	Yes	No	x	
Remarks: UPLAND									

Donth NA	atris.			ח בין ביי ד							
Depth Mainches) Color:	atrix %		Color:	Redox F	eatures	Loc	Tex	cture:	F	Remarks	:
0-20 10YR 3/2			COIOT:		Type:	<u>Loc:</u>		/ Loam			
1011137		,,0									
pe: C=Concentration, D	=Depletion, I	RM=Redu	uced Matrix	, CS=Covere	d or Coated Sa	nd Grains		Location:	PL=Pore Li	ning, M=	Matrix
ydric Soil Indicators: (A	pplicable to a	all LRRs,	unless othe	rwise noted	l.)		Indicators	for Probler	natic Hydr	ic Soils	
Histosol (A1)		_		Gleyed Matri	ix (S4)			Prairie Red			
Histic Epipedon (A2)		_		Redox (S5)				Surface (S7)			
Black Histic (A3) Hydrogen Sulfide (A4	1)	_		d Matrix (S6)				Manganese			
Stratified Layers (A5)			-	Mucky Mine Gleyed Matr				Shallow Dar [·] (Explain in		1712)	
2 cm Muck (A10)		_		ed Matrix (F3				(Explain in	Kemarksj		
Depleted Below Dark	Surface (A1	.1)		Dark Surface							
Thick Dark Surface (A	A12)	_	Deplete	ed Dark Surfa	ace (F7)		Indicators	of hydroph	vtic vegeta	tion and	
Sandy Mucky Minera	al (S1)	=	Redox I	Depressions	(F8)		wetland hy	ydrology mi or problema	ust be pres		SS
estrictive Layer (if prese	ent):										
Type: None			_				Hydric Soi	Present?	Yes	No	х
Depth (inches): NA	١		_				, 501				
etland Hydrology Indic imary Indicators (minim Surface Water (A1)	num of one re	equired; (Wat	er-Stained L			Se		oil Cracks (B6)	equired)
/etland Hydrology Indic rimary Indicators (minim Surface Water (A1) High Water Table (A2	num of one re	equired; (Wat Aqu	er-Stained La atic Fauna (E	313)		Se —	Surface Son Drainage	oil Cracks (Pattern (B	B6) 10)	equired)
	num of one re	equired; (Wat Aqu True	er-Stained L	313) nts (B14)		Se 	Surface So Drainage Dry-Seaso	oil Cracks (B6) 10) able (C2)	required,
Vetland Hydrology Indic rimary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3)	num of one re	equired; (Wat Aqu True Hyd	er-Stained Latic Fauna (E Aquatic Pla rogen Sulfide	313) nts (B14)	pots (C3)	Se	Surface Some Drainage Dry-Seaso Crayfish E	oil Cracks (Pattern (Ba on Water T	B6) 10) able (C2) 3)	
Vetland Hydrology Indic rimary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3)	oum of one re	equired; (Wat Aqu True Hyd Oxid	er-Stained Latic Fauna (E Aquatic Pla rogen Sulfida ized Rhizospha ence of Red	313) nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4)		Se	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Surface Surf	oil Cracks (Pattern (B: on Water T Burrows (CB Visible on A or Stressed	B6) 10) able (C2) 3) erial Imag Plants (D	ery (C9)
Vetland Hydrology Indic rimary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4	oum of one re	equired; (Wat Aqu True Hyd Oxid Pres	er-Stained Latic Fauna (E Aquatic Pla rogen Sulfide ized Rhizosph sence of Red ent Iron Red	313) nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled		Se	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (Pattern (B: on Water T Burrows (Ci Visible on A or Stressed hic Positio	B6) 10) able (C2) 3) erial Imag Plants (D n (D2)	ery (C9)
Vetland Hydrology Indic rimary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5)	oum of one re 2)		Wat Aqu True Hyd Oxid Pres Rece	er-Stained Latic Fauna (E Aquatic Pla rogen Sulfide ized Rhizosphe sence of Red ent Iron Red Muck Surfa	a13) nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7)		Se	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (Pattern (B: on Water T Burrows (CB Visible on A or Stressed	B6) 10) able (C2) 3) erial Imag Plants (D n (D2)	ery (C9)
Vetland Hydrology Indic rimary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4	num of one re) 2) I) rial Imagery (E	37)	Mate Aque Aque Aque Aque Aque Aque Aque Aqu	er-Stained Latic Fauna (E Aquatic Pla rogen Sulfide ized Rhizosph sence of Red ent Iron Red	a13) nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9)		Se	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (Pattern (B: on Water T Burrows (Ci Visible on A or Stressed hic Positio	B6) 10) able (C2) 3) erial Imag Plants (D n (D2)	ery (C9)
Vetland Hydrology Indic rimary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Ae	num of one re) 2) I) rial Imagery (E	37)	Mate Aque Aque Aque Aque Aque Aque Aque Aqu	er-Stained Latic Fauna (E e Aquatic Pla rogen Sulfide ized Rhizosphe ence of Red ent Iron Red I Muck Surfa ge or Well D	a13) nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9)		Se	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (Pattern (B: on Water T Burrows (Ci Visible on A or Stressed hic Positio	B6) 10) able (C2) 3) erial Imag Plants (D n (D2)	ery (C9)
retland Hydrology Indicinary Indicators (minimary Indicators (minimary Indicators (minimary Indicators) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Aese Sparsely Vegetated Concessions:	num of one re) 2) 4) Prial Imagery (E	37) 38)	Mate Aque Aque Aque Aque Aque Apres	er-Stained L atic Fauna (E Aquatic Pla rogen Sulfide ized Rhizosph sence of Red ent Iron Red Muck Surfa ge or Well D er (Explain in	a13) nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9) n Remarks)		Se	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (Pattern (B: on Water T Burrows (Ci Visible on A or Stressed hic Positio	B6) 10) able (C2) 3) erial Imag Plants (D n (D2)	ery (C9)
retland Hydrology Indicinary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Ae Sparsely Vegetated Conducted	num of one re) 2) Frial Imagery (Ecave Surface (E	37) 38) No	Mate Aqu	er-Stained Latic Fauna (E e Aquatic Pla rogen Sulfide ized Rhizosphe ence of Redent Iron Rede I Muck Surfa ge or Well Der (Explain in	nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9) n Remarks)	Soils (C6)		Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp FAC-Neut	oil Cracks (Pattern (B: On Water T Burrows (Ci Visible on A or Stressed hic Position ral Test (Di	B6) 10) able (C2) 3) erial Imag Plants (D n (D2) 5)	ery (C9)
Vetland Hydrology Indic rimary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Ae Sparsely Vegetated Cond eld Observations: urface Water Present?	num of one re) 2) rial Imagery (E cave Surface (E Yes Yes	37) 38) No _ No	Wat Aqu Aqu True Hyd Oxid Pres Recc Thin Gau Othe X Dep X Dep	er-Stained Latic Fauna (E e Aquatic Pla rogen Sulfide ized Rhizospherence of Red ent Iron Redu Muck Surfa ge or Well D er (Explain in	nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9) n Remarks)	Soils (C6)	Se 	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp FAC-Neut	oil Cracks (Pattern (B: on Water T Burrows (Ci Visible on A or Stressed hic Positio	B6) 10) able (C2) 3) erial Imag Plants (D n (D2) 5)	ery (C9)
Vetland Hydrology Indic rimary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Ae	yes Yes Yes	37) 38) No No	X Dep X Dep X Dep	er-Stained Latic Fauna (E e Aquatic Pla rogen Sulfide ized Rhizospherence of Red ent Iron Rede Muck Surfa ge or Well Der (Explain in th (inches): th (inches):	nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9) n Remarks) NA NA NA NA	Soils (C6)	d Hydrology	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp FAC-Neut	oil Cracks (Pattern (B: On Water T Burrows (Ci Visible on A or Stressed hic Position ral Test (Di	B6) 10) able (C2) 3) erial Imag Plants (D n (D2) 5)	ery (C9)

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC Investigator(s): Paul SWARTZINSKI Landform (hillslope, terrace, etc.): channel Slope (%): <5% Lat: Soil Map Unit Name: Are climatic/hydrologic conditions on the site ty Are Vegetation No , Soil No , or Hydro Are Vegetation No , Soil No , or Hydro SUMMARY OF FINDINGS – Attach site Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes	ology No ology No map show X No	time of year? significantly naturally pro	Sec Local re Long: ? Yes / disturb oblema	Sinction, Towelief (concertified of the second of the seco	nship, Range: ave, convex, none) No (if re "Normal Circums needed, explain ir ions, transects	Sampl : Convex Datur WI classification: no, explain in Ren stances" present Remarks.) , important fe	m: NAD83 narks.) ? Yes	1 <u>X</u>	
_	X No			within a \	Wetland?	Yes X No)		
Remarks: PEM WITHIN DITCH VEGETATION – Use scientific names of									
Tree Stratum (Plot size: 30)	Absolute % Cover	DominantS pecies?	Indica Status		Dominance Te Number of Dor That Are OBL, I Total Number	minant Species FACW, or FAC:	2	((A)
		= Total Co	wer		Species Across		2	((B)
Sapling/Shrub Stratum (Plot size: 15)	= 10tai e0	, vC1		Percent of Don That Are OBL, I	ninant Species	100.0	1% ((A/B)
1.					Prevalence Inc	ex Worksheet:			
		= Total Co	ver				N 4 ± 1	L	
Horb Stratum (Blot size: E	-				Total % Cover of		Multiply b	•	_
Herb Stratum (Plot size: 5)					OBL species	0%	x 10	.0%	=
1. Phalaris arundinacea	45%	Υ	FAC		FACW species	85%	x 217	0.0%	_
Spartina gracilis Helianthus maximiliani	40%	Y	FAC		FAC species	0%	x 30	.0%	_
3. Heliunthus maximiliani	5%	IN	UP	<u> </u>	FACU species	0%	x 4 0	.0%	
4					UPL species	5%	x 5 25	5.0%	_
	90%	= Total Co	ver		Column Totals:	90.0%	(A) 19	95%	(B)
Woody Vine Stratum (Plot size: 15	_)				Prevalence I	ndex = B/A =	2.17		_ (-/
1.						egetation Indicat			<u>=</u>
		= Total Co	ver		Y 1 - Rapid T	est for Hydrophy	tic Vegetati	on	
						nce Test if >50%	ŭ		
						nce Index is ≤ 3.0			
					Y 4 - Morpho	ological Adaptation narks or on a sep ic Hydrophytic Ve ric soil and wetlar	ons (Provide perate sheet egetation (E nd hydrolog	t) xplain)	-
					Hydrophytic Vegetation Present?	Yes <u>X</u>	No	_	
Remarks: PEM					1				

	Matrix				Features			Dan I
inches)	Color:	%	Color:		Type:	Loc:	Texture:	Remarks:
0-20	10YR 2/1	100%					Sandy Clay Loam	
ype: C=Conc	entration, D=Dep	oletion, RM=	Reduced Matı	ix, CS=Covere	d or Coated Sa	nd Grains	Location:	PL=Pore Lining, M=Matrix
lydric Soil Inc	dicators: (Applica	able to all LR	RRs, unless ot	nerwise noted	I.)		Indicators for Probler	matic Hydric Soils
Black His Hydroge Stratified 2 cm Mu Depleted Thick Da	ipedon (A2) stic (A3) n Sulfide (A4) d Layers (A5)		Sandy Stripp Loam Loam X Deple Redoo	y Gleyed Matr y Redox (S5) ped Matrix (S6 y Mucky Mine y Gleyed Matrix eted Matrix (F3 x Dark Surface eted Dark Surfax x Depressions) eral (F1) rix (F2) 3) e (F6) ace (F7)		Coast Prairie Red Dark Surface (S7) Iron-Manganese Very Shallow Dar Other (Explain in Indicators of hydroph wetland hydrology medisturbed or problems	Masses (F12) rk Surface (TF12) Remarks) ytic vegetation and ust be present, unless
Restrictive La Type: No							Hydric Soil Present?	Yes X No
Deptii (iiii Remarks:	uicsj. <u>IVA</u>							
Wetland Hyd	rology Indicators		red; check all t	hat apply)			Secondary Inc	dicators (2 or more required
Wetland Hyd	rology Indicators ators (minimum o			hat apply) ater-Stained L	eaves (B9)		•	dicators (2 or more required oil Cracks (B6)
Wetland Hyd erimary Indica X Surface W	rology Indicators ators (minimum o Vater (A1)		W				Surface So	
Wetland Hyde Primary Indica X Surface W X High Wate	rology Indicators ators (minimum o Vater (A1) er Table (A2)		W Ad	ater-Stained L	B13)		Surface Son Drainage	oil Cracks (B6)
Wetland Hyde Primary Indica X Surface W X High Wate	rology Indicators ators (minimum o Vater (A1) er Table (A2) n (A3)		W Ac Tr	ater-Stained L quatic Fauna (I	B13) ints (B14)		Surface So Drainage Dry-Seaso	oil Cracks (B6) Pattern (B10)
Wetland Hydromery Indicated Washington Market Marke	rology Indicators ators (minimum o Vater (A1) er Table (A2) n (A3)		W Ad Tr Hy	ater-Stained L quatic Fauna (I ue Aquatic Pla vdrogen Sulfid	B13) ints (B14)	oots (C3)	Surface Son Drainage Dry-Seaso Crayfish E	oil Cracks (B6) Pattern (B10) on Water Table (C2)
Wetland Hydromery Indicated Washington Market Marke	rology Indicators ators (minimum o Vater (A1) er Table (A2) n (A3) arks (B1) Deposits (B2)		W Ad Tr Hy Ox	ater-Stained L quatic Fauna (I ue Aquatic Pla vdrogen Sulfid idized Rhizosph	B13) ints (B14) e Odor (C1)	pots (C3)	Surface Some Drainage Dry-Seaso Crayfish E	oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8)
Wetland Hydromary Indication X Surface Work X High Water X Saturation Water Mater Sediment Drift Deposition	rology Indicators ators (minimum o Vater (A1) er Table (A2) n (A3) arks (B1) Deposits (B2)		W Ad Tr Hy Ox Pr	ater-Stained L quatic Fauna (I ue Aquatic Pla rdrogen Sulfid idized Rhizosph esence of Red	B13) Ints (B14) e Odor (C1) Peres on Living Ro		Surface Son Drainage Dry-Seaso Crayfish E Saturation Stunted o	oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9)
Wetland Hydromary Indication X Surface Work X High Water X Saturation Water Mater Sediment Drift Deposition	rology Indicators ators (minimum of vater (A1) er Table (A2) in (A3) arks (B1) Deposits (B2) osits (B3) or Crust (B4)		W Ac Tr Hy Pr Re	ater-Stained L quatic Fauna (I ue Aquatic Pla rdrogen Sulfid idized Rhizosph esence of Red	B13) Ints (B14) e Odor (C1) Peres on Living Roluced Iron (C4) uction in Tilled		Surface Son Drainage Dry-Seaso Crayfish E Saturation Stunted o	oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1) whic Position (D2)
Wetland Hydromary Indicator X Surface Work A High Water Mark Sediment Drift Deportment Drift Drift Deportment Drift	rology Indicators ators (minimum of vater (A1) er Table (A2) in (A3) arks (B1) Deposits (B2) osits (B3) or Crust (B4)	of one requir nagery (B7)	WAcTrHyO>PrReTh	ater-Stained L quatic Fauna (I ue Aquatic Pla rdrogen Sulfid idized Rhizosph esence of Red cent Iron Red	B13) Ints (B14) e Odor (C1) Ieres on Living Roluced Iron (C4) Iuction in Tilled Ice (C7) Iotata (D9)		Surface Son Drainage Dry-Season Crayfish Esturation Stunted of X Geomorp	oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1) whic Position (D2)
Wetland Hydromany Indica X Surface W X High Water X Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundation Sparsely Ve	rology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) Deposits (B2) posits (B3) or Crust (B4) posits (B5) n Visible on Aerial Inegetated Concave S	of one requir nagery (B7)	WAcTrHyO>PrReTh	ater-Stained L quatic Fauna (I ue Aquatic Pla vdrogen Sulfid idized Rhizosph esence of Red ecent Iron Red ain Muck Surfa auge or Well D	B13) Ints (B14) e Odor (C1) Ieres on Living Roluced Iron (C4) Iuction in Tilled Ice (C7) Iotata (D9)		Surface Son Drainage Dry-Season Crayfish Esturation Stunted of X Geomorp	oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1) whic Position (D2)
Wetland Hydromary Indica X Surface W X High Water X Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundation Sparsely Va	rology Indicators ators (minimum of vater (A1) er Table (A2) in (A3) arks (B1) Deposits (B2) posits (B3) or Crust (B4) posits (B5) in Visible on Aerial Integetated Concave S	of one requir nagery (B7)	W Accompany Acco	ater-Stained L quatic Fauna (I ue Aquatic Pla vdrogen Sulfid idized Rhizosph esence of Red ecent Iron Red ain Muck Surfa auge or Well D	B13) Ints (B14) e Odor (C1) Ieres on Living Roluced Iron (C4) Iuction in Tilled Ice (C7) Iotata (D9)		Surface Son Drainage Dry-Season Crayfish Esturation Stunted of X Geomorp	oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1) whic Position (D2)
Wetland Hydroprimary Indica X Surface W X High Water Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundation Sparsely Ve	rology Indicators ators (minimum of vater (A1) er Table (A2) in (A3) arks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) it Visible on Aerial In egetated Concave S	of one requir magery (B7) surface (B8)	WAcTrHy	ater-Stained L quatic Fauna (I ue Aquatic Pla vdrogen Sulfid idized Rhizosph esence of Red ecent Iron Red in Muck Surfa auge or Well D ther (Explain in	B13) Ints (B14) e Odor (C1) Interes on Living Roluced Iron (C4) uction in Tilled Ince (C7) Pata (D9) In Remarks)	Soils (C6)	Surface Son Drainage Dry-Season Crayfish Esturation Stunted of X Geomorp	oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1) whic Position (D2)
Primary Indica X Surface W X High Wate X Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundation	rology Indicators ators (minimum of Vater (A1) er Table (A2) in (A3) arks (B1) Deposits (B2) posits (B3) or Crust (B4) posits (B5) in Visible on Aerial Integerated Concave Services ations: r Present? Present? Yeesent?	of one requir magery (B7) surface (B8)		ater-Stained L quatic Fauna (I ue Aquatic Pla vdrogen Sulfid idized Rhizosph esence of Red ecent Iron Red in Muck Surfa auge or Well D ther (Explain in	B13) Ints (B14) e Odor (C1) Ieres on Living Roluced Iron (C4) Iuction in Tilled Ice (C7) Intal (D9) In Remarks)	Soils (C6)	Surface Son Drainage Dry-Season Crayfish Esaturation Stunted of X Geomorp X FAC-Neut	oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1) chic Position (D2) cral Test (D5)

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC		City/Cour		St	ate: SD		ipling Dai		/2018 08
Investigator(s): Paul SWARTZINSKI			Sectio	n, Tow	nship, Range:		,,		
Landform (hillslope, terrace, etc.): <u>channel</u>		l	Local relie	ef (conc	ave, convex, none	e): <u>Linear Slo</u>	оре		
Slope (%): <5% Lat:			Long:				tum: NA	.D83	
Soil Map Unit Name:						NWI classificatio	n:		
Are climatic/hydrologic conditions on the site to						no, explain in R			
Are Vegetation No , Soil No , or Hydr							nt? Yes	X	No
Are Vegetation No , Soil No , or Hydr	ology No	naturally pro	oblematic	:? (if	needed, explain i	n Remarks.)			
SUMMARY OF FINDINGS – Attach site	map show	ing samplii	ng point	t locat	ions, transects	, important	feautre	s, etc.	
	No	•	01		,	.,		.,	
			Is t	the San	npled Area				
-		X			Vetland?	Yes	No X	· ·	
Wetland Hydrology Present? Yes	No	X							
Remarks: UPLAND									
VEGETATION – Use scientific names of	f plants								
<u>Tree Stratum</u> (Plot size: 30)	Absolute % Cover	DominantS pecies?	Indicato Status	r		est Worksheet:			
						minant Species		0	(A)
1.						FACW, or FAC:		- 0	(^)
	·				Total Number			1	(B)
	-	_ = Total Co	ver		Species Across				(5)
Sapling/Shrub Stratum (Plot size: 15)					minant Species FACW, or FAC:		0.0%	(A/B)
1	· -				Prevalence In	dex Worksheet	:		
		= Total Co	ver		Total % Cover	of:	Mult	iply by:	
Herb Stratum (Plot size: 5)					OBL species	0%	x 1	0.0%	<u>—</u>
1. Bromus inermis	85%	Υ	FACU		·				_
2. Phalaris arundinacea	20%	N	FACW		FACW species		_ x 2	40.0%	_
	-				FAC species	0%	x 3	0.0%	
3	-			_	FACU species	85%	x 4	340.0%	_
	105%	_ = Total Co	ver		UPL species	0%	x 5	0.0%	
Woody Vine Stratum (Plot size: 15	_)				Column Totals	: 105.0%	(A)	380%	(B)
					Prevalence	Index = B/A =	_ ` ´ -	3.62	` '
1.					Frevalence	illuex – b/A –		3.02	
		= Total Co	vor		Hydrophytic V	egetation Indid	cators:		
	-	_ = 10tal Co	vei		N 1 Damid 3	Faat faa 11. daaa	h4:- \/		
					·	Test for Hydropl	, ,	etation	
					N 2 - Domin	ance Test if >50	%		
					N 3 - Prevale	ence Index is ≤ 3	3.0		
					data in Re	ological Adapta marks or on a s tic Hydrophytic Iric soil and wet	eperate : Vegetati	sheet) on (Explair	n)
					present, unless of				
					Hydrophytic Vegetation Present?	Yes	No	X	
Remarks: UPLAND									

Profile Description: (Descri	ibe to the d	epth needed	to document the	indicator or co	nfirm the a	bsence of indicator		
Depth Ma	trix		Redox	Features				
(inches) Color:	%	Cc	olor: %	Type:	Loc:	Texture:	Remarks	:
0-20 10YR 3/1						Clay Loam		
Type: C=Concentration, D=	:Depletion, F	RM=Reduced	Matrix, CS=Covere	ed or Coated Sa	nd Grains	Location:	PL=Pore Lining, M=	Matrix
Hydric Soil Indicators: (Ap	nlicable to a	II I PPc unlo	ss otherwise note	d)		Indicators for Probler	matic Hydric Soils	
Histosol (A1)	piicable to a		Sandy Gleyed Mati			Coast Prairie Red	•	
Histic Epipedon (A2)			Sandy Redox (S5)	11X (34)		Dark Surface (S7)	, ,	
Black Histic (A3)			Stripped Matrix (Se	6)		Iron-Manganese		
Hydrogen Sulfide (A4))		oamy Mucky Min			Very Shallow Dar		
Stratified Layers (A5)			oamy Gleyed Mat			Other (Explain in		
2 cm Muck (A10)			Depleted Matrix (F	·3)				
Depleted Below Dark		L)F	Redox Dark Surface	e (F6)				
Thick Dark Surface (A:Sandy Mucky Mineral	•		Depleted Dark Surf Redox Depressions			Indicators of hydroph wetland hydrology modisturbed or problema	ust be present, unle	ss
Restrictive Layer (if preser	nt):							
Type: None						Hydric Soil Present?	YesNo	X
Depth (inches): NA								
Remarks:								
HYDROLOGY								
Wetland Hydrology Indica								
Primary Indicators (minimu	um of one re	quired; checl				•	dicators (2 or more	required)
Surface Water (A1)		_	Water-Stained				oil Cracks (B6)	
High Water Table (A2)			Aquatic Fauna (True Aquatic Pl			~	Pattern (B10) on Water Table (C2)	
Saturation (A3) Water Marks (B1)		_	Hydrogen Sulfic				Burrows (C8)	
Sediment Deposits (B2	2)	_	Oxidized Rhizospl		oots (C3)		Visible on Aerial Imag	ery (C9)
Drift Deposits (B3)	,	=	Presence of Rec	duced Iron (C4)		Stunted o	or Stressed Plants (D	1)
Algal Mat or Crust (B4))		Recent Iron Rec	duction in Tilled	Soils (C6)	Geomorp	hic Position (D2)	
Iron Deposits (B5)		_	Thin Muck Surfa	ace (C7)		FAC-Neut	ral Test (D5)	
Inundation Visible on Aer		•	Gauge or Well I					
Sparsely Vegetated Conca	ave Surface (B	8)	Other (Explain i	in Remarks)				
Elald Observe th					<u> </u>			
Field Observations: Surface Water Present?	Yes	No X	Depth (inches):	NA				
Water Table Present?	·	NoX NoX			147-41	d Doublands Dr	V	v
Saturation Present?	·	NoX NoX			wetland	d Hydrology Present?	YesNo	X
(includes capillary fringe)				<u> </u>				
Describe Recorded Data (s	tream guage	, monitoring	well, aerial photos	s, previous insp	ections), if a	available:		
Remarks:								

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC Investigator(s): Paul SWARTZINSKI Landform (hillslope, terrace, etc.): channel Slope (%): <5% Lat: Soil Map Unit Name: Are climatic/hydrologic conditions on the site ty Are Vegetation No , Soil No , or Hydro Are Vegetation No , Soil No , or Hydro SUMMARY OF FINDINGS — Attach site Hydrophytic Vegetation Present? Yes	ology No ology No map show X No	time of years significantly naturally pro ing sampli	Sec Local re Long: Yes disturb oblema	stion, Towellef (cond X ped? All	State: SD Vnship, Range: cave, convex, none) No No (if no if needed, explain in incomplete.	Sampl : Convex Datur WI classification: to, explain in Rer stances" present Remarks.)	narks.) ? Yes _	3 X	
Hydric Soil Present? Yes _	X No				Wetland?	Yes X N	0		
Wetland Hydrology Present? Yes	X No			witimii u	wedana.			=	
Remarks: PEM VEGETATION – Use scientific names of	plants								
Tree Stratum (Plot size: 30)	Absolute % Cover	DominantS pecies?	Indica Status		Number of Don That Are OBL, F	ninant Species FACW, or FAC:		3	(A)
		= Total Co	ver		Species Across		3	3	(B)
Sapling/Shrub Stratum (Plot size: 15)		• • • • • • • • • • • • • • • • • • • •		Percent of Dom That Are OBL, F	ninant Species	100	.0%	(A/B)
1.					Prevalence Ind	ev Worksheet			
	-	= Total Co	ver						
		_ = 10tal co	VCI		Total % Cover o	ot: 	Multiply	y by:	_
Herb Stratum (Plot size: 5					OBL species	30%	x 1	30.0%	_
Phalaris arundinacea	65%	Υ	FAC	W	FACW species	100%	x 22	200.0%	<u></u>
2. Spartina gracilis	35%	Y	FAC		FAC species	0%	x 3	0.0%	
3. Typha angustifolia	30%	Y	ОВ	<u>L</u>	FACU species	0%	x 4	0.0%	_
4	-				UPL species	0%		0.0%	=
	130%	= Total Co	ver		Column Totals:		-		— (D)
Woody Vine Stratum (Plot size: 15)							230%	(B)
1.					Prevalence II	egetation Indica	1.7		<u>-</u>
		= Total Co			V 1 Danid T		+:- \	4:	
	-	= 10tal Co	VEI			est for Hydrophy	J	tion	
						nce Test if >50%			
						nce Index is ≤ 3.0			
					data in Ren		erate she egetation nd hydrolo	et) (Explain)
					Hydrophytic Vegetation Present?	Yes X	No		
Remarks: PEM									

Profile Description: (Describe to the depth	needed to document the indicator or confirm t	the absence of indicator
Depth Matrix	Redox Features	
(inches) Color: %	Color: % Type: I	Loc: Texture: Remarks:
0-20 10YR 2/1 100%		Clay Loam
Type: C=Concentration, D=Depletion, RM=R	educed Matrix, CS=Covered or Coated Sand Gra	ins Location: PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (Applicable to all LRF	Rs, unless otherwise noted.)	Indicators for Problematic Hydric Soils
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1)	Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) X Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8)	Coast Prairie Redoc (A16) Dark Surface (S7) Iron-Manganese Masses (F12) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless
Restrictive Layer (if present): Type: None Depth (inches): NA Remarks:		disturbed or problematic. Hydric Soil Present? Yes X No
HYDROLOGY Wetland Hydrology Indicators Primary Indicators (minimum of one require	d; check all that apply)	Secondary Indicators (2 or more required)
Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C4) Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Field Observations: Surface Water Present? Yes No Water Table Present? Yes X No Saturation Present? Yes X No (includes capillary fringe)	Depth (inches): 8 Were Depth (inches): 2	tland Hydrology Present? Yes <u>X</u> No
Describe Recorded Data (stream guage, mor	nitoring well, aerial photos, previous inspections	s), if available:

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC Investigator(s): Paul SWARTZINSKI Landform (hillslope, terrace, etc.): channel Slope (%): <5% Lat:			Section Section Section	on, Tow ef (cond	ty tate: <u>SD</u> rnship, Range: rave, convex, none	Samp	oling Date oling Point ,, pe um: NAD	t: DP1	/2018 10
Soil Map Unit Name: Are climatic/hydrologic conditions on the site ty Are Vegetation No Soil No or Hydro SUMMARY OF FINDINGS – Attach site	ology No ology No	time of year? significantly naturally pro	? Yes disturbe oblemati	X ed? A c? (if	No (if re "Normal Circum needed, explain in	IWI classificatior no, explain in Re stances" presen n Remarks.)	emarks.) t? Yes		No
Hydrophytic Vegetation Present? Yes _ Hydric Soil Present? Yes _ Wetland Hydrology Present? Yes _ Remarks: UPLAND	No				npled Area Wetland?	Yes	No X	_	
VEGETATION – Use scientific names of Tree Stratum (Plot size: 30) 1.	Absolute % Cover	DominantS pecies?	Indicato Status	or	Number of Do	est Worksheet: minant Species FACW, or FAC: of Dominant		2	(A)
Sapling/Shrub Stratum (Plot size: 15)	= Total Co	ver		Species Across Percent of Dor		10	0.0%	(B) (A/B)
1Herb Stratum (Plot size: 5)		= Total Co	ver		Total % Cover		Multip		
1. Phalaris arundinacea 2. Spartina pectinata 3. Typha angustifolia 4.	55% 30% 20%	Y Y N	FACW FACW OBL		OBL species FACW species FAC species FACU species	0% 0%	_ x1 _ x2 _ x3 _ x4	20.0% 170.0% 0.0% 0.0%	
Woody Vine Stratum (Plot size: 15	105%	= Total Co	ver		UPL species Column Totals Prevalence	0% : 105.0% Index = B/A =	x 5 (A) 1	0.0% 190% .81	(B)
1.		_ = Total Co	ver		Y 1 - Rapid T Y 2 - Domina Y 3 - Prevale Y 4 - Morph data in Re		ytic Veget	vide supp leet) n (Explain	n)
					Hydrophytic Vegetation Present?	Yes X	_No		
Remarks:									

Donth NA	triv			Dodou	Enatures						
Depth Mainches) Color:	itrix %		Color:	Redox F	Features	Loc	Tex	cture:	F	Remarks	:
0-20 10YR 3/2			Color:		Type:	Loc:		/ Loam	·	terriar ko	•
0-20 101K 3/ 1	100	70					J.L.,				
pe: C=Concentration, D	=Depletion, I	RM=Red	uced Matrix	k, CS=Covere	d or Coated Sa	nd Grains		Location:	PL=Pore Li	ning, M=	Matrix
ydric Soil Indicators: (Ap	plicable to a	all LRRs,	unless othe	erwise noted	l.)		Indicators	for Probler	natic Hydr	ic Soils	
Histosol (A1)		_		Gleyed Matri	ix (S4)			Prairie Red			
Histic Epipedon (A2)		_		Redox (S5)	`			Surface (S7)			
Black Histic (A3) Hydrogen Sulfide (A4	١	-		ed Matrix (S6) Mucky Mine			·	Manganese Shallow Dar			
Stratified Layers (A5)			-	Gleyed Matr				(Explain in		1112)	
2 cm Muck (A10)		_		ed Matrix (F3				(=::	,		
Depleted Below Dark	Surface (A1	1)		Dark Surface							
Thick Dark Surface (A	12)		Deplet	ed Dark Surfa	ace (F7)		Indicators	of hydroph	ytic vegeta	tion and	
Sandy Mucky Minera	l (S1)	=	Redox	Depressions	(F8)		wetland h	ydrology mi or problema	ust be pres		SS
estrictive Layer (if prese	nt):										
Type: None			_				Hydric Soi	l Present?	Yes	No	Х
Depth (inches): NA			_				,				
/etland Hydrology Indica rimary Indicators (minim Surface Water (A1) High Water Table (A2)	um of one re	equired;	Wa Aqu	ter-Stained L ıatic Fauna (E	B13)		Se	 Drainage	oil Cracks (Pattern (B	B6) 10)	equired)
Vetland Hydrology Indications (minimary Indicators (minimary Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	um of one re	equired;	— Wa Aqu Tru Hyc	ter-Stained L Jatic Fauna (E e Aquatic Pla Irogen Sulfid	B13) ints (B14) e Odor (C1)		Se 	Surface Some Drainage Dry-Seaso Crayfish E	oil Cracks (Pattern (B: on Water T Burrows (C	B6) 10) able (C2) 3)	
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B:	um of one re	equired;	Wa Aqu Tru Hyo Oxio	ter-Stained L Jatic Fauna (E e Aquatic Pla Irogen Sulfid Jized Rhizosph	B13) Ints (B14) e Odor (C1) Ieres on Living Ro	pots (C3)	Se	Surface Son Drainage Dry-Seaso Crayfish E Saturation	oil Cracks (Pattern (B: on Water T Burrows (CE Visible on A	B6) 10) able (C2) 3) erial Imag	ery (C9)
Vetland Hydrology Indica rimary Indicators (minimany Indicators (Miniman	um of one re	equired;	— Wa Aqu Tru — Hyo — Oxio — Pre	ter-Stained L uatic Fauna (E e Aquatic Pla Irogen Sulfid dized Rhizosph sence of Red	B13) ints (B14) e Odor (C1) ieres on Living Ro luced Iron (C4)		Se	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Surface Surf	oil Cracks (Pattern (B: on Water T Burrows (CB Visible on A or Stressed	B6) 10) able (C2) 3) erial Imag Plants (D	ery (C9)
Vetland Hydrology Indica rimary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Drift Deposits (B3)	um of one re	equired;	Wa Aqu Tru Hyc Oxic Pre Rec	ter-Stained L uatic Fauna (E e Aquatic Pla Irogen Sulfid dized Rhizosph sence of Red ent Iron Red	B13) Ints (B14) e Odor (C1) Peres on Living Rouced Iron (C4) Suction in Tilled		Se	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (Pattern (B: on Water T Burrows (Ci Visible on A or Stressed hic Positio	B6) 10) able (C2) 3) erial Imag Plants (D n (D2)	ery (C9)
/etland Hydrology Indica rimary Indicators (minimany Indicators (minimany Indicators (Manimany Indicators (Maniman	um of one re		War Aqu Tru Hyc Oxic Pre Rec Thir	ter-Stained L uatic Fauna (E e Aquatic Pla Irogen Sulfid dized Rhizosph sence of Red ent Iron Red n Muck Surfa	B13) Ints (B14) e Odor (C1) Ieres on Living Roluced Iron (C4) Iuction in Tilled Ice (C7)		Se	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (Pattern (B: on Water T Burrows (CB Visible on A or Stressed	B6) 10) able (C2) 3) erial Imag Plants (D n (D2)	ery (C9)
Vetland Hydrology Indication rimary Indicators (minimater Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	um of one re 2) rial Imagery (E	37)	Mar Aqu Tru Hyc Oxic Pre Rec Thir	ter-Stained L uatic Fauna (E e Aquatic Pla Irogen Sulfid dized Rhizosph sence of Red ent Iron Red	B13) Ints (B14) e Odor (C1) Ieres on Living Roluced Iron (C4) Iuction in Tilled Ice (C7) Iotata (D9)		Se	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (Pattern (B: on Water T Burrows (Ci Visible on A or Stressed hic Positio	B6) 10) able (C2) 3) erial Imag Plants (D n (D2)	ery (C9)
Vetland Hydrology Indications (minimary Indicators (minimary Indicators (minimature) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae Sparsely Vegetated Cond	um of one re 2) rial Imagery (E	37)	Mar Aqu Tru Hyc Oxic Pre Rec Thir	ter-Stained L uatic Fauna (E e Aquatic Pla Irogen Sulfid dized Rhizosph sence of Red ent Iron Red n Muck Surfa uge or Well D	B13) Ints (B14) e Odor (C1) Ieres on Living Roluced Iron (C4) Iuction in Tilled Ice (C7) Iotata (D9)		Se	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (Pattern (B: on Water T Burrows (Ci Visible on A or Stressed hic Positio	B6) 10) able (C2) 3) erial Imag Plants (D n (D2)	ery (C9)
Vetland Hydrology Indications (Minimary Indicators (Minimary Indicators (Minimary Indicators (Minimary Indicators (Material Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae	um of one re 2) rial Imagery (E ave Surface (E	37) 38)	— Wa Aqu — Tru — Hyo Oxio — Pre — Rec — Thii — Gau — Oth	ter-Stained L Jatic Fauna (E e Aquatic Pla Jrogen Sulfiddized Rhizosph sence of Red ent Iron Red n Muck Surfa Jige or Well D er (Explain ir	B13) Ints (B14) e Odor (C1) Interes on Living Roluced Iron (C4) Interes on Living Roluced Iron (C4) Interes on Living Roluced Iron (C7) Interes on Living Roluced (C7) Interes on Living R		Se	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (Pattern (B: on Water T Burrows (Ci Visible on A or Stressed hic Positio	B6) 10) able (C2) 3) erial Imag Plants (D n (D2)	ery (C9)
/etland Hydrology Indicarimary Indicators (minimary Indicators (minimary Indicators (Minimary Indicators) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae Sparsely Vegetated Cond	2)) rial Imagery (E ave Surface (E	37) 38) No	War Aqu Aqu Tru Hyc Oxic Pre Rec Thir Gau Oth	ter-Stained L uatic Fauna (E e Aquatic Pla lrogen Sulfide dized Rhizosph sence of Red ent Iron Red n Muck Surfa uge or Well D er (Explain ir	B13) Ints (B14) e Odor (C1) Interes on Living Reduced Iron (C4) Ince (C7) Interes on Living Reduced Iron in Tilled Ince (C7) In Remarks) NA	Soils (C6)		Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp FAC-Neut	oil Cracks (Pattern (B: On Water T Burrows (Ci Visible on A or Stressed hic Position ral Test (Di	B6) 10) able (C2) B) erial Imag Plants (D n (D2) 5)	ery (C9)
/etland Hydrology Indicarimary Indicators (minimary	um of one re 2) rial Imagery (E ave Surface (E Yes Yes	37) 38) No No	— Wa Aqu — Tru — Hyc Oxic — Pre — Rec — Thii Gau — Oth	ter-Stained L uatic Fauna (E e Aquatic Pla lrogen Sulfid- dized Rhizosph sence of Red ent Iron Red n Muck Surfa uge or Well D er (Explain ir	B13) Ints (B14) e Odor (C1) Interes on Living Roluced Iron (C4) Interes on Living Roluced Iron (C4) Interes on Living Roluced Iron (C7) Interes on Living Roluced Iron (C7) Interes on Living Roluced Iron (C7) Interes on Living Roluced Iron (C4) In	Soils (C6)	Se 	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp FAC-Neut	oil Cracks (Pattern (B: on Water T Burrows (Ci Visible on A or Stressed hic Positio	B6) 10) able (C2) B) erial Imag Plants (D n (D2) 5)	ery (C9)
Vetland Hydrology Indicationary Indicators (minimal Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae Sparsely Vegetated Concountable eld Observations: urface Water Present?	2) rial Imagery (E ave Surface (E Yes Yes Yes	37) 38) No _ No	Wa Aqu Tru Hyc Oxic Pre Rec Thir Gau Oth X Dep X Dep X Dep	ter-Stained L latic Fauna (E e Aquatic Pla lrogen Sulfid- dized Rhizosph sence of Red ent Iron Red- n Muck Surfa lige or Well D ler (Explain ir oth (inches): oth (inches):	B13) Ints (B14) e Odor (C1) Interes on Living Rouced Iron (C4) Interes on Living Rouced Iron (C4) Interes on Living Rouced Iron (C7) Interes on Living Rouced Iron (C7) Interes on Living Rouced Iron (C7) Interes on Living Rouced Iron (C4) Interes on Living Rouce	Soils (C6)	d Hydrology	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp FAC-Neut	oil Cracks (Pattern (B: On Water T Burrows (Ci Visible on A or Stressed hic Position ral Test (Di	B6) 10) able (C2) B) erial Imag Plants (D n (D2) 5)	ery (C9)

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC		City/Cour	-	Sta	ate: SD		ling Date	-	/2018 11
Investigator(s): Paul SWARTZINSKI					ship, Range:		,,		
Landform (hillslope, terrace, etc.): channel		_			ve, convex, none):		NAD	.02	
Slope (%): <5% Lat:			Long: _		NI) A	Datu VI classification	m: NAD	183	
Soil Map Unit Name: Are climatic/hydrologic conditions on the site ty	mical for this	time of year?	2 Voc	v	_	vi classification o, explain in Rei			
Are Vegetation No , Soil No , or Hydr			_				•	v	No
Are Vegetation No , Soil No , or Hydr					needed, explain in		: 163		
							_		
SUMMARY OF FINDINGS – Attach site	•		ng poi	nt locati	ons, transects,	important fo	eautres	, etc.	
Hydrophytic Vegetation Present? Yes _	X No								
Hydric Soil Present? Yes _	X No			s the Sam		Yes X N	0		
Wetland Hydrology Present? Yes	X No		١,	within a W	reuanur	<u> </u>	·	_	
Remarks:									
PEM ROAD DITCH									
VEGETATION – Use scientific names of	plants								
T	Absolute	DominantS	Indicat	tor	Dominance Test	t Worksheet:			
<u>Tree Stratum</u> (Plot size: <u>30</u>)	% Cover	pecies?	Status		Number of Dom	inant Species			
					That Are OBL, FA	•		3	(A)
1					Total Number of				
		= Total Co	ver		Species Across A	All Strata:		3	(B)
Sapling/Shrub Stratum (Plot size: 15)				Percent of Domi	nant Species			
1. Salix exigua	, 15%	Υ	FACV	v	That Are OBL, FA	ACW, or FAC:	10	00.0%	(A/B)
	13/0		TACV	<u> </u>					
2	-				Prevalence Inde	x Worksheet:			
	15%	= Total Co	ver		Total % Cover of	f:	Multip	oly by:	
Herb Stratum (Plot size: 5)					OBL species	10%	x 1	10.0%	
1. Phalaris arundinacea	55%	Υ	FACV	v	FACW species	100%	x 2	200.0%	
2. Spartina pectinata	30%	Υ	FACV	v	FAC species	0%	x 3	0.0%	
3. Typha angustifolia	10%	N	OBL		•		_		
4.		· 			FACU species	0%	x 4	0.0%	
4.					UPL species	0%	x 5	0.0%	_
	95%	= Total Co	ver		Column Totals:	110.0%	(A)	210%	(B)
Woody Vine Stratum (Plot size: 15	_)				Prevalence In	dex = B/A =	1	91	
					Hydrophytic Ve	getation Indica	tors:		
1					Y 1 - Rapid Te	_		tation	
		= Total Co	ver			, , ,	Ū	cacion	
					Y 2 - Dominan				
					Y 3 - Prevalen	ce Index is ≤ 3.0)		
					Y 4 - Morphol		-		orting
						arks or on a sep			. \
					N Problemation Problemation N Problemation Problematic		-		
					present, unless dis			ology illu:	st be
					present, amess als	turbed or prob	cinatic		
					Hydrophytic				
					Vegetation	Yes X	No		
					Present?				
Remarks: PEM									

Depth Mati	rix						bsence of indicator	
· / COIOT:	11/			Redox F	eatures			
0.20 4.000.274	%		Color:	%	Type:	Loc:	Texture:	Remarks:
0-20 10YR 3/1	100	%					Sandy Clay Loam	
Type: C=Concentration, D=E	Depletion, I	RM=Red	uced Matrix	x, CS=Covered	d or Coated Sar	nd Grains	Location:	PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (App	licable to a	all LRRs.	unless oth	erwise noted	.)		Indicators for Problem	natic Hydric Soils
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5)		- - -	Sandy Sandy Strippe Loamy Loamy	Gleyed Matri: Redox (S5) ed Matrix (S6) Mucky Minei Gleyed Matri	x (S4) ral (F1) ix (F2)		Coast Prairie Red Dark Surface (S7) Iron-Manganese Very Shallow Dar	Masses (F12) k Surface (TF12)
2 cm Muck (A10) X Depleted Below Dark S Thick Dark Surface (A12 Sandy Mucky Mineral (2)	1)	Redox Deplet	ed Matrix (F3 Dark Surface ed Dark Surfa Depressions ((F6) ce (F7)		Indicators of hydrophy wetland hydrology mu disturbed or problema	st be present, unless
Restrictive Layer (if present	t):						Hadda Call Burnana	V V N-
Depth (inches): NA							Hydric Soil Present?	Yes <u>X</u> No
Remarks: PEM						ļ.		
HYDROLOGY								
HYDROLOGY Wetland Hydrology Indicate	ors							
HYDROLOGY Wetland Hydrology Indicate Primary Indicators (minimur Surface Water (A1) High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) X Inundation Visible on Aeria Sparsely Vegetated Concav	m of one re	37)	WaAquTruHycOxicPreRecThin	ter-Stained Le uatic Fauna (B e Aquatic Plai Irogen Sulfide dized Rhizosphe sence of Redu	ents (B14) codor (C1) cres on Living Ro cuced Iron (C4) cuction in Tilled ce (C7) cata (D9)		Surface So Drainage I Dry-Seaso Crayfish B Saturation	icators (2 or more required) poil Cracks (B6) Pattern (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) r Stressed Plants (D1) nic Position (D2) ral Test (D5)
Wetland Hydrology Indicator Primary Indicators (minimum Surface Water (A1) High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) X Inundation Visible on Aeria Sparsely Vegetated Concavers	m of one re al Imagery (E ve Surface (B	37) 38)	WaAquTruHycOxicPreRecThiiGauOth	ter-Stained Le uatic Fauna (B e Aquatic Plai drogen Sulfide dized Rhizosphe sence of Redu ent Iron Redu n Muck Surfae uge or Well Da eer (Explain in	et13) Ints (B14) Ints (B14) Ints (B14) Ints (B14) Ints (B14) Interes on Living Ro Interes on		Surface So Drainage I Dry-Seaso Crayfish B Saturation Stunted o	oil Cracks (B6) Pattern (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) r Stressed Plants (D1) nic Position (D2)
Wetland Hydrology Indicate Primary Indicators (minimur Surface Water (A1) High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) X Inundation Visible on Aeria Sparsely Vegetated Concav	m of one re al Imagery (E ve Surface (E	37) 38) No	Wa Aqu Tru Hyc Oxic Pre Rec Thin Gau Oth	ter-Stained Le uatic Fauna (B e Aquatic Plai drogen Sulfide dized Rhizosphe sence of Redu ent Iron Redu n Muck Surfac uge or Well Da er (Explain in	ents (B14) codor (C1) cres on Living Ro cuced Iron (C4) cuction in Tilled ce (C7) cata (D9)		Surface So Drainage I Dry-Seaso Crayfish B Saturation Stunted o	oil Cracks (B6) Pattern (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) r Stressed Plants (D1) nic Position (D2)
Wetland Hydrology Indicator Primary Indicators (minimum Surface Water (A1) High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) X Inundation Visible on Aeria Sparsely Vegetated Concavers	al Imagery (E ve Surface (B Yes Yes	37) 38) No _ No _	Wa Aqu Tru Hyo Oxio Pre Rec Thii Gau Oth	ter-Stained Le uatic Fauna (B e Aquatic Plan drogen Sulfide dized Rhizosphe sence of Redu ent Iron Redu n Muck Surfac uge or Well Da eer (Explain in	et13) Ints (B14) Ints (B14) Ints (B14) Ints (B14) Ints (B14) Interes on Living Ro Interes on	Soils (C6)	Surface So Drainage I Dry-Seaso Crayfish B Saturation Stunted of	oil Cracks (B6) Pattern (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) r Stressed Plants (D1) nic Position (D2)
Wetland Hydrology Indicate Primary Indicators (minimum Surface Water (A1) High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) X Inundation Visible on Aeria Sparsely Vegetated Concave Field Observations: Surface Water Present?	m of one re al Imagery (E ve Surface (E	37) 38) No _ No _	Wa Aqu Tru Hyo Oxio Pre Rec Thii Gau Oth	ter-Stained Le uatic Fauna (B e Aquatic Plai drogen Sulfide dized Rhizosphe sence of Redu ent Iron Redu n Muck Surfac uge or Well Da er (Explain in	nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9) Remarks)	Soils (C6)	Surface So Drainage I Dry-Seaso Crayfish B Saturation Stunted o X Geomorpl X FAC-Neuti	oil Cracks (B6) Pattern (B10) In Water Table (C2) In Water Table (C2) In Water Table (C9) In Stressed Plants (D1) Inic Position (D2) In Test (D5)

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC		City/Cour	nty: <u>Deuel</u>		y ate: SD		npling Dat	-	/2018 12
Investigator(s): Paul SWARTZINSKI			Section		nship, Range:				
Landform (hillslope, terrace, etc.): channel		1			ave, convex, none	e): Linear S	lone		
Slope (%): <5% Lat:					ave, convex, none	·	itum: NA	D83	
Soil Map Unit Name:						NWI classificati			
Are climatic/hydrologic conditions on the site ty	nical for this	time of year?	Yes .	Χ		no, explain in			
Are Vegetation No , Soil No , or Hydr									No
Are Vegetation No , Soil No , or Hydr					needed, explain				
SUMMARY OF FINDINGS – Attach site							feautre	s etc.	
	No	•		iocat	ions, transcet	s, important	readire	.5, С.С.	
		X	ls t	he San	pled Area				
_					Vetland?	Yes	No X		
	No	X							
Remarks: UPLAND									
VEGETATION – Use scientific names of	plants								
Trace Structures (Diet sines, 20	Absolute	DominantS		•	Dominance T	est Worksheet	•		
<u>Tree Stratum</u> (Plot size: <u>30</u>)	% Cover	pecies?	Status		Number of Do	ominant Specie	S		
						FACW, or FAC		0	(A)
1				_	Total Number	of Dominant			
		= Total Co	ver		Species Acros	s All Strata:		1	(B)
Sapling/Shrub Stratum (Plot size: 15)					minant Species FACW, or FAC		0.0%	(A/B)
1.					Prevalence In	dex Workshee	+•		
		= Total Cov	ver	_	Total % Cover			iply by:	
Herb Stratum (Plot size: 5)					-				_
1. Bromus inermis	80%	Υ	FACU		OBL species	0%	x1	0.0%	
Phalaris arundinacea	15%	N	FACU		FACW species	15%	x 2	30.0%	
-	13/0		TACW	_	FAC species	0%	x 3	0.0%	
3	-			_	FACU species	80%	x 4	320.0%	
	95%	= Total Co	ver		UPL species	0%	x 5	0.0%	
Woody Vine Stratum (Plot size: 15	_)				Column Total:	s: 95.0%	(A)	350%	(B)
					Prevalence	Index = B/A =	` ′ -	3.68	(-/
1				_	Trevalence	macx - b/A -		3.00	_
		= Total Co	ver		Hydrophytic \	Vegetation Ind	icators:		
		_			N 1 - Rapid	Test for Hydror	hvtic Veg	etation	
						ance Test if >5	, ,		
						ence Index is ≤			
					data in Re	nological Adapt emarks or on a tic Hydrophytic	seperate s Vegetati	sheet) on (Explair	n)
					Indicators of hyd present, unless				st be
					Hydrophytic Vegetation Present?	Yes	No	x	
Remarks: UPLAND									

Profile Description: (Desc	ribe to the	depth n	eeded t	o document the i	ndicator or co	nfirm the a	bsence of indicator		
Depth Ma	atrix			Redox F	eatures				
(inches) Color:	9	%	Cold	or: %	Type:	Loc:	Texture:	R	emarks:
0-20 10YR 4/2	2 10	0%					Sandy Clay Loam		
Type: C=Concentration, D	=Depletion	, RM=Red	duced M	Matrix, CS=Covered	d or Coated Sa	nd Grains	Location:	PL=Pore Lir	ning, M=Matrix
Hydric Soil Indicators: (Ap							Indicators for Proble		
Histosol (A1)	piicabie to	on Enns		ndy Gleyed Matri			Coast Prairie Rec	•	2 30113
Histic Epipedon (A2)				ndy Redox (S5)	X (34)		Dark Surface (S7	. ,	
Black Histic (A3)				ripped Matrix (S6))		Iron-Manganese		2)
Hydrogen Sulfide (A4	.)			amy Mucky Mine			Very Shallow Da		
Stratified Layers (A5)				amy Gleyed Matr			Other (Explain in		,
2 cm Muck (A10)				epleted Matrix (F3			` '	•	
Depleted Below Dark	Surface (A	11)	Re	dox Dark Surface	(F6)				
Thick Dark Surface (A	.12)		De	epleted Dark Surfa	ace (F7)		Indicators of hydroph	ytic vegetat	ion and
Sandy Mucky Minera	l (S1)		Re	edox Depressions	(F8)		wetland hydrology m disturbed or problem	ust be prese	
Restrictive Layer (if prese	nt):						·		
Type: None							Hydric Soil Present?	Yes	No X
Depth (inches): NA							riyuric 3011 Fresent:	163	
Remarks:						l			
HYDROLOGY									
Wetland Hydrology Indica	ators								
Primary Indicators (minim	um of one	required	; check a	all that apply)			Secondary In	dicators (2 c	or more required
Surface Water (A1)				_Water-Stained Lo	eaves (B9)		Surface S	oil Cracks (E	86)
High Water Table (A2)	ł			Aquatic Fauna (E			_	Pattern (B1	•
Saturation (A3)				_True Aquatic Pla				on Water Ta	
Water Marks (B1)				_Hydrogen Sulfide	٠, ,			Burrows (C8	•
Sediment Deposits (B2	2)			Oxidized Rhizospho		oots (C3)			erial Imagery (C9)
Drift Deposits (B3)	,			_Presence of Red	` '	Ca:la (CC)		or Stressed F	. ,
Algal Mat or Crust (B4)			Recent Iron Redu Thin Muck Surfa		Solis (C6)		hic Position tral Test (D5	
Iron Deposits (B5) Inundation Visible on Ae	rial Imagery	(B7)		Gauge or Well D	. ,		FAC-Neu	נמו ופגו (טס)
Sparsely Vegetated Conc	• ,			Other (Explain in					
				_ ` ` '	·				
Field Observations:									
Surface Water Present?	Yes	No	X	Depth (inches):	NA				
Water Table Present?		No _		Depth (inches):	NA	Wetland	d Hydrology Present?	Yes	No X
Saturation Present? (includes capillary fringe)	Yes	No _	X	Depth (inches):	NA				
Describe Recorded Data (s	tream gua	ge, moni	toring w	vell, aerial photos,	, previous insp	ections), if	available:		
Remarks:	9 44	<u> </u>		,		,			

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC Investigator(s): Paul SWARTZINSKI Landform (hillslope, terrace, etc.): channel Slope (%): <5% Lat: Soil Map Unit Name: Are climatic/hydrologic conditions on the site ty	voical for this		Sec Local re Long:	St tion, Town lief (conca	ate: SD nship, Range: _ ave, convex, none) _ N	Samp		: <u>DP11</u>	
Are Vegetation No , Soil No , or Hydr			-				•	Х	No
Are Vegetation No , Soil No , or Hydr					needed, explain in		_		
SUMMARY OF FINDINGS – Attach site					ions, transects	. important fe	autres.	etc.	
Hydrophytic Vegetation Present? Yes	X No					, por turno re			
<u> </u>				Is the Sam	pled Area				
_			,	within a V	Vetland?	Yes X N	0	_	
Wetland Hydrology Present? Yes	X No								
Remarks: PEM									
VEGETATION – Use scientific names of	plants								
<u>Tree Stratum</u> (Plot size: <u>30</u>)	Absolute % Cover	DominantS pecies?	Indica Status		Dominance Te Number of Dor				
					That Are OBL, F	FACW, or FAC:		2	(A)
1					Total Number			2	(D)
		_ = Total Co	ver		Species Across			2	(B)
Sapling/Shrub Stratum (Plot size: 15)				Percent of Don That Are OBL, F	•	100	0.0%	(A/B)
1.	-				Prevalence Ind	lex Worksheet:			
		= Total Co	ver		Total % Cover of	of:	Multipl	v hv:	
Herb Stratum (Plot size: 5)					OBL species	0%	x 1	0.0%	_
1. Phalaris arundinacea	75%	Υ	FAC\	W			-		_
2. Spartina pectinata	25%	Υ	FAC\	W	FACW species	100%	-	200.0%	_
3. Asclepias speciosa	5%	N	FAC		FAC species	5%	_	15.0%	_
4.					FACU species	0%	x 4	0.0%	_
	105%	= Total Co	ver		UPL species	0%	x 5	0.0%	_
Woody Vine Stratum (Plot size: 15	1				Column Totals:	105.0%	(A)	215%	(B)
woody vine stratum (110t 312t. 15	_/				Prevalence I	ndex = B/A =	2.0	05	
1.					Hydrophytic V	egetation Indica	tors:		
		_ = Total Co	ver		Y1 - Rapid To	est for Hydrophy	tic Vegeta	ation	
					Y 2 - Domina	nce Test if >50%			
					Y 3 - Prevale	nce Index is ≤ 3.0)		
					Y 4 - Morpho	ological Adaptation	ons (Provi		orting
						ic Hydrophytic Ve			1)
					Indicators of hydr present, unless di		•	ogy mus	t be
					Hydrophytic Vegetation Present?	Yes X	No		
Remarks: PEM									

Profile Descri	iption: (Descr	ibe to the	depth ne	eded to do	cument the i	ndicator or co	nfirm the a	bsence of indicator	
Depth	Ma	trix			Redox F	eatures			
(inches)	Color:		%	Color:	%	Type:	Loc:	Texture:	Remarks:
0-20	10YR 3/1	10	0%					Sandy Clay Loam	
Type: C=Cond	entration, D=	Depletion	, RM=Redı	uced Matri	x, CS=Covere	d or Coated Sa	nd Grains	Location: F	PL=Pore Lining, M=Matrix
Hydric Soil In	dicators: (Ap	olicable to	all LRRs.	unless oth	erwise noted	i.)		Indicators for Problem	atic Hydric Soils
Histosol Histic Ep Black His Hydroge Stratified 2 cm Mu X Depleted	(A1) ipedon (A2) stic (A3) n Sulfide (A4) d Layers (A5)	Surface (A	- - -	Sandy Sandy Strippe Loamy Loamy Deplet Redox	Gleyed Matri Redox (S5) ed Matrix (S6) Mucky Mine Gleyed Matr ed Matrix (F3 Dark Surface	ix (S4)) ral (F1) ix (F2) 8) (F6)		Coast Prairie Redo Dark Surface (S7) Iron-Manganese N Very Shallow Dark Other (Explain in F	oc (A16) Masses (F12) Surface (TF12) Remarks)
	lucky Mineral	-	-		Depressions			Indicators of hydrophy wetland hydrology must disturbed or problema	st be present, unless
Restrictive La Type: N Depth (in Remarks:	one	nt):		_				Hydric Soil Present?	Yes <u>X</u> No
High Wat X Saturatio Water M: Sediment Drift Dep Algal Mat Iron Depo Inundation	rology Indica ators (minimu Vater (A1) er Table (A2) n (A3) arks (B1) : Deposits (B2) osits (B3) : or Crust (B4)	im of one	(B7)	Ma Aqu Tru Hyo Oxio Pre Rec Thi	ter-Stained L uatic Fauna (E e Aquatic Pla drogen Sulfido dized Rhizosph sence of Red	nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9)		Surface So Drainage P Dry-Season Crayfish Bu Saturation V	cators (2 or more required) il Cracks (B6) lattern (B10) n Water Table (C2) urrows (C8) lisible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2) al Test (D5)
Field Observa Surface Water Water Table I Saturation Pro (includes cap) Describe Reco	r Present? Present? esent? illary fringe)	Yes	No No (No ge, monito	X Dep	oth (inches): oth (inches): oth (inches): aerial photos,	NA NA 6 previous insp		I Hydrology Present? available:	Yes <u>X</u> No
Remarks:									

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC Investigator(s): Paul SWARTZINSKI		City/Cour	Sec	ction, To	State: SD wnship, Range:	Sam	pling Date		
Landform (hillslope, terrace, etc.): <u>channel</u>					cave, convex, none)	-	ре		
Slope (%): <5% Lat:			Long:				um: NAI	083	
Soil Map Unit Name:			.			WI classification			
Are climatic/hydrologic conditions on the site ty Are Vegetation No , Soil No , or Hydro									No
Are Vegetation No , Soil No , or Hydro Are Vegetation No , Soil No , or Hydro					if needed, explain in		iti tes		NO
SUMMARY OF FINDINGS – Attach site	map show	ing sampli					feautre	s, etc.	
	No								
Hydric Soil Present? Yes _	No	X			mpled Area Wetland?	Yes	No X		
Wetland Hydrology Present? Yes _	No	X		witiiii a	wetianu:				
Remarks: UPLAND									
VEGETATION – Use scientific names of	plants								
<u>Tree Stratum</u> (Plot size: <u>30</u>)	Absolute % Cover	DominantS pecies?	Indica Statu		Dominance Tes Number of Dor That Are OBL, F	ninant Species		0	(A)
1		= Total Co	wer		Total Number of Species Across	of Dominant		1	(B)
Sapling/Shrub Stratum (Plot size: 15)	= 10tai eo	, v C1		Percent of Dom That Are OBL, F	ninant Species		0.0%	(A/B)
1					Prevalence Ind	ex Worksheet:	:		
		_ = Total Co	ver		Total % Cover of	of:	Multi	ply by:	
Herb Stratum (Plot size: 5					OBL species	0%	x 1	0.0%	_
1. Bromus inermis	95%	Υ	FAC	CU	FACW species	0%	x 2	0.0%	
2.					FAC species	0%	x 3	0.0%	
	95%	= Total Co	ver		FACU species	95%	- x 4	380.0%	_
Woody Vine Stratum (Plot size: 15)				UPL species	0%	_ · · · _	0.0%	_
					Column Totals:				— (D)
1.							_ (A) _	380%	(B)
		= Total Co	ver		Prevalence II Hydrophytic Ve	<u> </u>	-	4.00	
						_			
					N 1 - Rapid To	, ,	, ,	etation	
					N 2 - Domina	nce Test if >50	%		
					N 3 - Prevalei	nce Index is ≤ 3	.0		
					N 4 - Morpho data in Ren N Problemati Indicators of hydr present, unless di	narks or on a se c Hydrophytic ' ic soil and wet	eperate s Vegetation and hydr	heet) on (Explain)
					Hydrophytic Vegetation Present?	Yes	No	х	
Remarks: UPLAND									

Depth Matrix Redox Features (inches) Color: % Color: % Type: Loc: 0-20 10YR 4/2 100% Appe: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains (inches) Color: % Type: Loc: (inches) Color: % Sandy Gleved Matrix (S4) (inches) Color: % Color: % Type: Loc: Matrix (S4) (inches) Color: % Color: % Type: Loc: Matrix (S4) (inches) Color: % Color: % Type: Loc: Matrix (S4) (inches) Color: % Color: % Type: Loc: Matrix (S4) (inches) Color: % Color: % Type: Loc: Matrix (S4) (inches) Color: % Color: % Type: Loc: Matrix (S4) (inches) Color: % Color: % Type: Loc: Matrix (S4) (inches) Color: % Color: % Type: Loc: Matrix (S4) (inches) Color: % Color: % Type: Loc: Matrix (S4) (inches) Color: Matrix (S4) (inches) Color: % Color: Matrix (S4) (inches) Color: Matrix (S4) (Texture: Remarks: Sandy Clay Loam
0-20 10YR 4/2 100% ype: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Sandy Gleyed Matrix (S4)	
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Gleyed Matrix (S4)	
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Gleyed Matrix (S4)	
Histosol (A1) Sandy Gleyed Matrix (S4)	Location: PL=Pore Lining, M=Matrix
<u> </u>	Indicators for Problematic Hydric Soils
Histic Epipedon (A2)Sandy Redox (S5)	Coast Prairie Redoc (A16)
Disabilitatio (A2)	Dark Surface (S7)
Black Histic (A3) Hydrogen Sulfide (A4) Stripped Matrix (S6) Loamy Mucky Mineral (F1)	Iron-Manganese Masses (F12) Very Shallow Dark Surface (TF12)
Stratified Layers (A5) Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
2 cm Muck (A10) Depleted Matrix (F3)	
Depleted Below Dark Surface (A11) Redox Dark Surface (F6)	
Thick Dark Surface (A12) Depleted Dark Surface (F7)	Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1) Redox Depressions (F8)	wetland hydrology must be present, unless disturbed or problematic.
estrictive Layer (if present):	
Type: YES ROAD BASE PRESENT	Hydric Soil Present? Yes No X
Depth (inches): 12	,
emarks:	
YDROLOGY	
Vetland Hydrology Indicators	
	Secondary Indicators (2 or more required
rimary Indicators (minimum of one required; check all that apply)	
Surface Water (A1) Water-Stained Leaves (B9)	Surface Soil Cracks (B6)
Surface Water (A1)Water-Stained Leaves (B9) High Water Table (A2) Aquatic Fauna (B13)	Surface Soil Cracks (B6) Drainage Pattern (B10)
Surface Water (A1) Water-Stained Leaves (B9) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14)	Surface Soil Cracks (B6) Drainage Pattern (B10)Dry-Season Water Table (C2)
Surface Water (A1) Water-Stained Leaves (B9) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Water Marks (B1) Hydrogen Sulfide Odor (C1)	Surface Soil Cracks (B6) Drainage Pattern (B10)
Surface Water (A1) Water-Stained Leaves (B9) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Water Marks (B1) Hydrogen Sulfide Odor (C1)	Surface Soil Cracks (B6) Drainage Pattern (B10)Dry-Season Water Table (C2)Crayfish Burrows (C8)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Water Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3)	Surface Soil Cracks (B6) Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7)	Surface Soil Cracks (B6) Drainage Pattern (B10)Dry-Season Water Table (C2)Crayfish Burrows (C8)Saturation Visible on Aerial Imagery (C9)Stunted or Stressed Plants (D1)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Gauge or Well Data (D9)	Surface Soil Cracks (B6) Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7)	Surface Soil Cracks (B6) Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks)	Surface Soil Cracks (B6) Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks)	Surface Soil Cracks (B6) Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks)	Surface Soil Cracks (B6) Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Water Table Present? Yes No X Depth (inches): Maudic Fauna (B13) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) Wetland Wetland	Surface Soil Cracks (B6) Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Water Table Present? Water Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks)	Surface Soil Cracks (B6) Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5) d Hydrology Present? Yes NoX

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC		City/Cour			State: SD		ling Date: ling Point:	10/6/ DP11	
Investigator(s): Paul SWARTZINSKI					vnship, Range:		,,		
Landform (hillslope, terrace, etc.): channel					cave, convex, none):	-			
Slope (%): <5% Lat:			Long:		NI)		m: <u>NAD83</u>	3	
Soil Map Unit Name: Are climatic/hydrologic conditions on the site ty	nical for this	time of year?	2 Voc			WI classification: o, explain in Rer 			
Are Vegetation No , Soil No , or Hydro			-				•	V	No
Are Vegetation No , Soil No , or Hydro					f needed, explain in		. 165		INU
							_		
SUMMARY OF FINDINGS – Attach site			ng po	int loca	tions, transects,	important fe	autres, e	etc.	
Hydrophytic Vegetation Present? Yes _	X No								
Hydric Soil Present? Yes	X No				mpled Area	Yes X N	0		
Wetland Hydrology Present? Yes	X No			within a	Wetland?	165 <u>X</u> N			
Remarks:									
VEGETATION – Use scientific names of	plants				104				
Tree Streeture (Diet size) 20	Absolute	DominantS			Dominance Tes	st Worksheet:			
<u>Tree Stratum</u> (Plot size: <u>30</u>)	% Cover	pecies?	Status	S	Number of Don	ninant Species			
					That Are OBL, F	•	2		(A)
1					Total Number o	of Dominant			
		= Total Co	ver		Species Across	All Strata:	2	<u> </u>	(B)
Sapling/Shrub Stratum (Plot size: 15)				Percent of Dom That Are OBL, F	•	100.	.0%	(A/B)
1.					Prevalence Inde	ev Worksheet:			
		= Total Co	ver		Total % Cover o		Multiply	, by:	
Herb Stratum (Plot size: 5)									_
	750/	V	FAC	NA /	OBL species	5%	-	5.0%	=
Phalaris arundinacea Constitutorea	75%	Y	FAC		FACW species	110%	x 22	20.0%	_
Spartina pectinata Typha angustifolia	35% 5%	Y	FAC' OB		FAC species	0%	x 3	0.0%	_
3. Typna angustrjona	370	IN			FACU species	0%	x 4	0.0%	
4					UPL species	0%	x 5	0.0%	-
	115%	= Total Co	ver		Column Totals:		-		
Woody Vine Stratum (Plot size: 15)							225%	(B)
	- *				Prevalence Ir	ndex = B/A =	1.9	6	_
1.					Hydrophytic Ve	getation Indica	tors:		
		= Total Co	ver		Y 1 - Rapid Te	est for Hydrophy	tic Vegeta	tion	
					Y 2 - Domina	nce Test if >50%			
						nce Index is ≤ 3.0			
					data in Rem	logical Adaptation	erate shee	et)	-
					Indicators of hydr		-		
					present, unless di		•		
					Hydrophytic Vegetation Present?	Yes X	No		
Remarks: PEM									

Profile Descrip	otion: (Descri	be to the	depth ne	eded to d	ocument the i	ndicator or co	nfirm the a	bsence of indicator	
Depth	Mat	rix			Redox F	eatures			
(inches)	Color:	9	6	Color:	%	Type:	Loc:	Texture:	Remarks:
0-20	10YR 2/1	10	0%					Clay Loam	
Type: C=Conce	entration, D=I	Depletion	, RM=Red	uced Matr	ix, CS=Covere	d or Coated Sa	nd Grains	Location: I	PL=Pore Lining, M=Matrix
Hydric Soil Ind	licators: (App	olicable to	all LRRs,	unless oth	nerwise noted	l.)		Indicators for Problem	natic Hydric Soils
Histosol (Histic Epil Black Hist Hydroger Stratified 2 cm Muc X Depleted Thick Dar	A1) pedon (A2) cic (A3) Sulfide (A4) Layers (A5) Ck (A10) Below Dark Sk Surface (A1	Surface (A 2)	- - - -	Sandy Sandy Stripp Loam Loam Deple Redoo	r Gleyed Matri r Redox (S5) sed Matrix (S6 y Mucky Mine y Gleyed Matr ted Matrix (F3 c Dark Surface ted Dark Surface	ix (S4)) ral (F1) rix (F2)) (F6) ace (F7)		Coast Prairie Redo Dark Surface (S7) Iron-Manganese I Very Shallow Dark Other (Explain in	oc (A16) Masses (F12) k Surface (TF12) Remarks) rtic vegetation and
Sandy Mit	ucky Mineral	(51)	=	Kedo	x Depressions	(F8)		wetland hydrology mu disturbed or problema	
Restrictive Lay Type: No Depth (inc Remarks:	ne	t):						Hydric Soil Present?	Yes <u>X</u> No
X Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo X Inundation	ology Indicated tors (minimulater (A1) er Table (A2) (A3) rks (B1) Deposits (B2) erits (B3) or Crust (B4) sits (B5)	m of one	(B7)	WAcTriHyOxPriReThGa	ater-Stained L quatic Fauna (E ue Aquatic Pla rdrogen Sulfid idized Rhizosph esence of Red	nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9)		Surface So Drainage F Dry-Seaso Crayfish B Saturation S Stunted or	icators (2 or more required) bil Cracks (B6) Pattern (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) r Stressed Plants (D1) nic Position (D2) ral Test (D5)
Field Observat Surface Water Water Table P Saturation Pre (includes capil Describe Reco	Present? resent? sent? lary fringe)	Yes	No N	X De	epth (inches): epth (inches): epth (inches): aerial photos	NA NA 10 , previous insp		l Hydrology Present? available:	Yes <u>X</u> No
Remarks:									

Project/Site: Tatanka Ridge Wind Project		City/Cour	nty: <u>De</u>				mpling Da		/2018
Applicant/Owner: Buffalo Ridge III, LLC					State: SD	Sar	mpling Po	int: DP1	.16
Investigator(s): Paul SWARTZINSKI					wnship, Range:	·	,,		
Landform (hillslope, terrace, etc.): channel		_			ncave, convex, none			500	
Slope (%): <5% Lat:			Long: _				atum: NA	ID83	
Soil Map Unit Name: Are climatic/hydrologic conditions on the site ty	nical for this	time of year?	2 Vos	v		IWI classificati no, explain in I			
Are Vegetation No , Soil No , or Hydro			_						No
Are Vegetation No , Soil No , or Hydro					(if needed, explain i				
SUMMARY OF FINDINGS – Attach site							t feautre	es, etc.	
	No				-	<u> </u>			
		X	ı	ls the Sa	ampled Area				
_			١	within a	Wetland?	Yes	No X		
	No	X							
Remarks: UPLAND									
VEGETATION – Use scientific names of	plants								
Tree Stratum (Plot size: 30)	Absolute	DominantS			Dominance Te	est Worksheet	:		
Tree stratum (Plot Size. 30)	% Cover	pecies?	Status	;	Number of Do	minant Specie	S		
					That Are OBL,	FACW, or FAC	: <u> </u>	0	(A)
1					Total Number	of Dominant			
		= Total Co	ver		Species Across	All Strata:		1	(B)
Sapling/Shrub Stratum (Plot size: 15)				Percent of Dor That Are OBL,	•		0.0%	(A/B)
1					Prevalence Inc	dex Workshee	t:		
		= Total Co	ver		Total % Cover			tiply by:	
Herb Stratum (Plot size: 5)		_			-				
1. Bromus inermis	95%	Υ	FACL	1	OBL species	0%	x1	0.0%	
	3370	•	TACC	J	FACW species	0%	x 2	0.0%	
2		· 			FAC species	0%	x 3	0.0%	
	95%	= Total Co	ver		FACU species	95%	x 4	380.0%	
Woody Vine Stratum (Plot size: 15	_)				UPL species	0%	x 5	0.0%	
					Column Totals	: 95.0%	(A)	380%	(B)
1					Prevalence	Index = B/A =	` ′ -	4.00	` '
		= Total Co	ver					4.00	
		_			Hydrophytic V	egetation Ind	icators:		
					<u>N</u> 1 - Rapid T	est for Hydrop	ohytic Veg	etation	
					N 2 - Domina	ance Test if >5	0%		
					N 3 - Prevale	ence Index is ≤	3.0		
					N 4 - Morph	ological Adapt marks or on a	ations (Pr	sheet)	-
					N Problemat		_		
					Indicators of hyd present, unless d				st be
					Hydrophytic Vegetation Present?	Yes	No	x	
Remarks: UPLAND									

Type: YES ROAD BASE Depth (inches): 12	Depth	Matr						eatures			ture:	_	0 00 5 11 -	
pre: C=Concentration, D=Deletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils	incnes)	Color:			Col	lor:	%	Type:	Loc:		ture:	К	emarks:	
rdric Soil Indicators (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sandy Redox (S	0-20	10YR 3/2	100	%						Sandy (Clay Loam			
Histosol (A1) Sandy Gleyed Matrix (S4) Dark Surface (S7) Depleted Matrix (S6) Inon-Manganese Masses (F12) Very Shallow Dark Surface (F12) Stratified Leavers (A8) Depleted Matrix (F2) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Matrix (F2) Depleted Below Dark Surface (A12) Depleted Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F6) Thick Dark Surface (A12) Redox Depressions (F8) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Strictive Layer (if present): Type: YES ROAD BASE Depth (inches): 12 Purple (F6) Thick Dark Surface (F6) Thick Dark Sur	pe: C=Conce	entration, D=D	epletion, F	RM=Red	duced N	Matrix, CS=C	overed	or Coated Sa	nd Grains		Location:	PL=Pore Li	ning, M=N	/latrix
Histic Epipedon (A2) Black Histic (A3) Stripped Matrix (S6) Stripped Suffide (A4) Loamy Mucky Mineral (F1) Loamy (Beyed Matrix (F2) Loamy (Beyed Matrix (F3) Loamy (Beyed M	dric Soil Ind	licators: (Appl	icable to a	all LRRs	, unles	s otherwise	noted.)		Indicators	for Probler	natic Hydri	c Soils	
PYPROLOGY Vetland Hydrology Indicators rrimary Indicators (minimum of one required; check all that apply) Surface Water (A1) Surface Water (A2) High Water Table (A2) Aquatic Fauna (B13) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Pory-Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Drift Deposits (B2) Drift Deposits (B2) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B5) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA aturation Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA	Histic Epil Black Hist Hydroger Stratified 2 cm Muc Depleted Thick Dar	pedon (A2) tic (A3) n Sulfide (A4) Layers (A5) ck (A10) Below Dark Si k Surface (A12	2)	1)	Sa S	andy Redox tripped Mati pamy Mucky pamy Gleyec epleted Mat edox Dark Si epleted Darl	(S5) rix (S6) r Minera d Matrix rix (F3) urface (k Surface	al (F1) < (F2) F6) ce (F7)		Dark S Iron-P Very S Other	Surface (S7) Manganese Shallow Dar (Explain in of hydrophydrology mu	Masses (F1 k Surface (Remarks) ytic vegeta ust be preso	TF12) tion and	s
PROLOGY Vetland Hydrology Indicators rimary Indicators (minimum of one required; check all that apply) Surface Water (A1)	Type: YES	S ROAD BASE):							Hydric Soi	Present?	Yes	No	х
YDROLOGY Vetland Hydrology Indicators rrimary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Aquatic Fauna (B13) Sediment Deposits (B1) Drift Deposits (B2) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Recent Iron Reduction in Tilled Soils (C6) Recent Iron Reduction in Tilled Soils (C6) Responsits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Vater Table Present? Ves No X Depth (inches): NA Wetland Hydrology Present? Ves No X Depth (inches): NA Wetland Hydrology Present? Ves No X Depth (inches): NA Wetland Hydrology Present? Ves No X Depth (inches): NA Wetland Hydrology Present? Ves No X Depth (inches): NA Wetland Hydrology Present? Ves No X Depth (inches): NA Wetland Hydrology Present? Ves No X Depth (inches): NA Wetland Hydrology Present? Ves No X Depth (inches): NA Wetland Hydrology Present? Ves No X Depth (inches): NA Wetland Hydrology Present? Ves No X Depth (inches): NA Wetland Hydrology Present? Ves No X Depth (inches): NA Wetland Hydrology Present? Ves No X Depth (inches): NA Wetland Hydrology Present? Ves No X Depth (inches): NA Wetland Hydrology Present? Ves No X Depth (inches): NA Wetland Hydrology Present? Ves No X Depth (inches): NA Wetland Hydrology Present? Ves No X Depth (inches): NA Wetland Hydrology Present? Ves No X Depth (inches): NA Wetland Hydrology Present? Ves No X Depth (inches): NA Wetland Hydrology Present? Ves No X Depth (inches): NA Wetland Hydrology Present? Ves No X Depth (inches): NA Wetland Hydrology Present? Ves No X Depth (inches): NA									ļ					
Surface Water (A1)														
Surface Water (A1)														
High Water Table (A2) Saturation (A3) Aquatic Fauna (B13) Drainage Pattern (B10) Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Iron Deposits (B5) Iron Deposits (B5) Algal Mat or Water Table (B4) Algal Mat or Crust (B4) Algal Mat	Vetland Hydr	ology Indicato												
Saturation (A3)	Vetland Hydr rimary Indica	ology Indicato		equired	; check			(00)		Se				equired
Water Marks (B1)	Vetland Hydr rimary Indica Surface W	rology Indicato Itors (minimun Tater (A1)		equired	; check	Water-Sta	ined Le	` ,		Se	Surface So	oil Cracks (I	36)	equired
Sediment Deposits (B2)	Vetland Hydr rimary Indica Surface W High Wate	rology Indicato stors (minimun rater (A1) er Table (A2)		equired _.	; check 	Water-Sta Aquatic Fa	ined Le una (B:	13)		Se	Surface So Drainage	oil Cracks (I Pattern (B1	36) 10)	equired
Drift Deposits (B3)	Vetland Hydr rimary Indica Surface W High Wate Saturation	rology Indicato stors (minimun fater (A1) er Table (A2) n (A3)		equired	; check	Water-Sta Aquatic Fa True Aqua	ined Le una (Bí tic Plan	13) ts (B14)		Se —	Surface So Drainage Dry-Seaso	oil Cracks (I Pattern (B1 on Water Ta	36) 10) able (C2)	equired
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) FAC-Neutral Test (D5) Gauge or Well Data (D9) Other (Explain in Remarks) Field Observations: urface Water Present? Yes No X Depth (inches): NA Vater Table Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA aturation Present? Yes No X Depth (inches): NA	Vetland Hydr Primary Indica Surface W High Wate Saturation Water Ma	rology Indicato itors (minimun later (A1) er Table (A2) n (A3) rks (B1)		equired	; check ——	Water-Sta Aquatic Fa True Aqua Hydrogen	ined Le una (Bí tic Plan Sulfide	13) ts (B14) Odor (C1)	pots (C3)	Se	Surface So Drainage Dry-Seaso Crayfish E	oil Cracks (I Pattern (B1 on Water Ta Burrows (C8	36) 10) able (C2) 3)	
Iron Deposits (B5)	Vetland Hydr Primary Indica Surface W High Wate Saturation Water Ma Sediment	rology Indicato itors (minimun rater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2)		equired	; check 	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Rh	ined Le una (B: tic Plan Sulfide izosphe	13) ts (B14) Odor (C1) res on Living Ro	pots (C3)	Se	Surface Son Drainage Dry-Seaso Crayfish E Saturation	oil Cracks (I Pattern (B1 on Water Ta Burrows (C8 Visible on A	36) 10) able (C2) 8) erial Image	ry (C9)
Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Furface Water Present? Yes NoX Depth (inches):NA Vater Table Present? Yes NoX Depth (inches):NA Wetland Hydrology Present? Yes NoX Depth (inches):NA aturation Present? Yes NoX Depth (inches):NA	Vetland Hydr Primary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo	rology Indicato tors (minimun rater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) osits (B3)		equired	; check 	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence (ined Le una (B: tic Plan Sulfide izosphe of Redu	13) its (B14) Odor (C1) res on Living Ro ced Iron (C4)		Se 	Surface Son Drainage Dry-Season Crayfish E Saturation Stunted o	oil Cracks (I Pattern (B1 on Water Ta Burrows (C8 Visible on A r Stressed	36) 10) able (C2) 3) erial Image Plants (D1	ry (C9)
Surface Water Present? Yes No _X _ Depth (inches): NA No _X _ Depth (inches): NA Water Table Present? Yes No _X _ Depth (inches): NA Wetland Hydrology Present? Yes No _X _ Depth (inches): NA	Primary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat	rology Indicato tors (minimun rater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) osits (B3) or Crust (B4)		equired	; check	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence o	ined Le una (B: tic Plan Sulfide izosphe of Redu n Redu	13) ts (B14) Odor (C1) res on Living Ro ced Iron (C4) ction in Tilled		Se	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp	oil Cracks (I Pattern (B1 on Water Ta Burrows (C8 Visible on A r Stressed hic Positior	36) LO) able (C2) B) erial Image Plants (D1 n (D2)	ry (C9)
urface Water Present? Yes No _X _ Depth (inches): _NA Vater Table Present? Yes No _X _ Depth (inches): _NA aturation Present? Yes No _X _ Depth (inches): _NA	Vetland Hydr Primary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo: Inundation	rology Indicato itors (minimum later (A1) er Table (A2) i (A3) rks (B1) Deposits (B2) osits (B3) or Crust (B4) sits (B5) Visible on Aeria	n of one re	37)	; check	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence of Recent Iro Thin Muck Gauge or N	ined Le una (B: tic Plan Sulfide izosphe of Redu n Redu : Surfac Well Da	13) Its (B14) Odor (C1) res on Living Roced Iron (C4) ction in Tilled e (C7) ta (D9)		Se	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp	oil Cracks (I Pattern (B1 on Water Ta Burrows (C8 Visible on A r Stressed hic Positior	36) LO) able (C2) B) erial Image Plants (D1 n (D2)	ry (C9)
aturation Present? Yes No X Depth (inches): NA	Vetland Hydr rimary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo: Inundation	rology Indicato itors (minimum later (A1) er Table (A2) i (A3) rks (B1) Deposits (B2) osits (B3) or Crust (B4) sits (B5) Visible on Aeria	n of one re	37)	; check	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence of Recent Iro Thin Muck Gauge or N	ined Le una (B: tic Plan Sulfide izosphe of Redu n Redu : Surfac Well Da	13) Its (B14) Odor (C1) res on Living Roced Iron (C4) ction in Tilled e (C7) ta (D9)		Se	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp	oil Cracks (I Pattern (B1 on Water Ta Burrows (C8 Visible on A r Stressed hic Positior	36) LO) able (C2) B) erial Image Plants (D1 n (D2)	ry (C9)
aturation Present? Yes NoX Depth (inches): NA	Vetland Hydr rimary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo: Inundation Sparsely Ve	rology Indicato tors (minimum rater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) osits (B3) or Crust (B4) sits (B5) Visible on Aeria getated Concav	n of one re I Imagery (B e Surface (B	37) 18)		Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence o Recent Iro Thin Muck Gauge or N Other (Exp	ined Le una (B: tic Plan Sulfide izosphe of Redu n Redu Surfac Well Da olain in	ts (B14) Odor (C1) res on Living Roced Iron (C4) ction in Tilled e (C7) ta (D9) Remarks)		Se	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp	oil Cracks (I Pattern (B1 on Water Ta Burrows (C8 Visible on A r Stressed hic Positior	36) LO) able (C2) B) erial Image Plants (D1 n (D2)	ry (C9)
, , , ,	Vetland Hydr rimary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo: Inundation Sparsely Ve	rology Indicator (tors (minimum rater (A1) er Table (A2) er (A3) erks (B1) Deposits (B2) erks (B3) erks (B3) erks (B5) Visible on Aeria getated Concav	n of one re I Imagery (B e Surface (B		x	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence of Recent Iro Thin Muck Gauge or N Other (Exp	ined Le una (B: tic Plan Sulfide izosphe of Redu n Redu : Surfac Well Da blain in	nts (B14) Odor (C1) res on Living Roced Iron (C4) ction in Tilled e (C7) ta (D9) Remarks)	Soils (C6)		Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp FAC-Neut	oil Cracks (I Pattern (B1 on Water Ta Burrows (CE Visible on A or Stressed hic Position ral Test (D5	36) LO) able (C2) B) erial Image Plants (D1 n (D2)	ry (C9) .)

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC Investigator(s): Paul SWARTZINSKI Landform (hillslope, terrace, etc.): channel Slope (%): <5% Lat: Soil Map Unit Name: Are climatic/hydrologic conditions on the site ty Are Vegetation No , Soil No , or Hydro Are Vegetation No , Soil No , or Hydro SUMMARY OF FINDINGS – Attach site Hydrophytic Vegetation Present? Yes	ology No ology No	time of year? significantly naturally pro ing samplii	Sec Local re Long: Yes disturb oblema	Stition, Town	rate: SD nship, Range: ave, convex, none) No (if ne "Normal Circums needed, explain in ions, transects,	Sampli : Convex Datur WI classification: no, explain in Ren stances" presents Remarks.)	m: NAD83 narks.) P Yes		3
Hydric Soil Present? Yes _	X No				npled Area	Yes X No			
Wetland Hydrology Present? Yes	X No			within a V	Vetland?	res <u> </u>	'——		
Remarks: PEM VEGETATION – Use scientific names of	plants								
<u>Tree Stratum</u> (Plot size: <u>30</u>) 1.	Absolute % Cover	DominantS pecies?	Indica Status		Dominance Tes Number of Don That Are OBL, F Total Number o	minant Species FACW, or FAC:	2	(A)	
		= Total Co	ver		Species Across		2	(B)	
Sapling/Shrub Stratum (Plot size: 15)	_			Percent of Dom That Are OBL, F	ninant Species	100.09	% (A/B	;)
1.					Prevalence Ind	ex Worksheet:			
		= Total Co	ver		Total % Cover of		Multiply k		
Herb Stratum (Plot size: 5)							Multiply b	<u> </u>	
1. Phalaris arundinacea	65%	Υ	FAC		OBL species	15%	x 115	.0%	
Spartina pectinata	25%	Y	FAC		FACW species	90%	x 2 <u>180</u>	0.0%	
3. Typha angustifolia	15%	N	OB		FAC species	0%	x 30.	0%	
					FACU species	0%	x 40.	0%	
4	4050/				UPL species	0%	x 50.	0%	
	105%	= Total Co	ver		Column Totals:	105.0%	(A) <u>19</u>	95% (B	3)
Woody Vine Stratum (Plot size: 15	_)				Prevalence II	ndex = B/A =	1.86		
1.					Hydrophytic Ve	egetation Indicat	ors:		
		= Total Co	ver		Y 1 - Rapid Te	est for Hydrophyt	tic Vegetatio	on	
					Y 2 - Domina	nce Test if >50%			
					Y 3 - Prevalei	nce Index is ≤ 3.0			
					data in Ren		erate sheet egetation (Ex nd hydrolog) xplain)	g
					Hydrophytic Vegetation Present?	Yes X	No	-	
Remarks: PEM					1				

Profile Description: (Describe to the dep	th needed to	document the i	ndicator or co	nfirm the a	bsence of indicator	
Depth Matrix		Redox F	eatures			
(inches) Color: %	Color	: %	Type:	Loc:	Texture:	Remarks:
0-20 10YR 2/1 100%					Clay Loam	
Type: C=Concentration, D=Depletion, RM	=Reduced Mat	rix, CS=Covere	d or Coated Sa	nd Grains	Location:	PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (Applicable to all					Indicators for Problen	-
						•
Histosol (A1) Histic Epipedon (A2)		y Gleyed Matri y Redox (S5)	x (54)		Coast Prairie Red Dark Surface (S7)	
Black Histic (A3)		ped Matrix (S6))		Iron-Manganese	
Hydrogen Sulfide (A4)		ny Mucky Mine			Very Shallow Dar	
Stratified Layers (A5)		ny Gleyed Matr			Other (Explain in	
2 cm Muck (A10)		eted Matrix (F3				·
X Depleted Below Dark Surface (A11)	Redo	x Dark Surface	(F6)			
Thick Dark Surface (A12)	Depl	eted Dark Surfa	ace (F7)		Indicators of hydrophy	tic vegetation and
Sandy Mucky Mineral (S1)	Redo	x Depressions	(F8)		wetland hydrology mudisturbed or problema	ist be present, unless
Restrictive Layer (if present):					<u> </u>	
Type: None					Hydric Soil Present?	Yes X No
Depth (inches): NA					,	<u> </u>
Remarks: PEM				ıı .		
HYDROLOGY						
Wetland Hydrology Indicators						
Primary Indicators (minimum of one requ	iired; check all	that apply)			Secondary Ind	licators (2 or more required)
Surface Water (A1)	v	/ater-Stained L	eaves (B9)		Surface So	oil Cracks (B6)
High Water Table (A2)	А	quatic Fauna (E	313)		Drainage	Pattern (B10)
X Saturation (A3)		rue Aquatic Pla				n Water Table (C2)
Water Marks (B1)		ydrogen Sulfid	. ,	. ()		urrows (C8)
Sediment Deposits (B2)		xidized Rhizosph		oots (C3)		Visible on Aerial Imagery (C9)
Drift Deposits (B3) Algal Mat or Crust (B4)		resence of Red ecent Iron Red	, ,	Soils (C6)		r Stressed Plants (D1) hic Position (D2)
Iron Deposits (B5)		hin Muck Surfa		30113 (CU)	X FAC-Neut	
Inundation Visible on Aerial Imagery (B7)		auge or Well D	` '		<u> </u>	141 1631 (23)
Sparsely Vegetated Concave Surface (B8)		ther (Explain in				
Field Observations:						
Surface Water Present? Yes	· · · · · · · · · · · · · · · · · · ·	epth (inches):	NA			
Water Table Present? Yes	· · · · · · · · · · · · · · · · · · ·	epth (inches):	NA	Wetland	Hydrology Present?	Yes X No
Saturation Present? Yes X (includes capillary fringe)		epth (inches):	6			
Describe Recorded Data (stream guage, r	nonitoring wel	l, aerial photos	, previous insp	ections), if a	available:	
Remarks:						

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC		City/Cour	nty: <u>Deuel</u>		r ate: SD		npling Da	-	/2018
Investigator(s): Paul SWARTZINSKI			Section	n, Town	ship, Range:		,,	·	
Landform (hillslope, terrace, etc.): channel		ı			ve, convex, non	e): Linear S			
Slope (%): <5% Lat:						· · · · · · · · · · · · · · · · · · ·	itum: NA	D83	
Soil Map Unit Name:						NWI classificati	on:		
Are climatic/hydrologic conditions on the site ty	pical for this	time of year?	? Yes	Χ	No (if	no, explain in l	Remarks.)		
Are Vegetation No , Soil No , or Hydr	ology No	significantly	disturbed	? Are	"Normal Circur	nstances" prese	nt? Yes	Х	No
Are Vegetation No , Soil No , or Hydr	ology No	naturally pro	oblematic?	? (if r	needed, explain	in Remarks.)			
SUMMARY OF FINDINGS – Attach site					ons transect	s imnortant	feautre	s etc	
	No	•	ing point	iocati	ons, transcet	s, important	readire	.5, etc.	
			lc ti	ha Sam	pled Area				
		X			/etland?	Yes	No X		
Wetland Hydrology Present? Yes _	No	X							
Remarks: UPLAND									
VEGETATION – Use scientific names of	plants								
	Absolute	DominantS	Indicator		Dominance T	est Worksheet			
<u>Tree Stratum</u> (Plot size: <u>30</u>)	% Cover	pecies?	Status			ominant Specie			
						FACW, or FAC		0	(A)
1.						r of Dominant			
		= Total Cov	ver		Species Acros			1	(B)
Sapling/Shrub Stratum (Plot size: 15)	_			Percent of Do	ominant Species , FACW, or FAC		0.0%	(A/B)
1.									
<u> </u>				_	Prevalence Ir	ndex Workshee	t:		
	-	= Total Co	ver		Total % Cove	r of:	Mult	iply by:	
Herb Stratum (Plot size: 5					OBL species	0%	x 1	0.0%	
1. Bromus inermis	85%	Υ	FACU		FACW species	s 20%	x 2	40.0%	
2. Phalaris arundinacea	20%	N	FACW		FAC species	0%	x 3	0.0%	
3.					•	-	-		<u> </u>
	105%	= Total Co	ver	_	FACU species		× 4	340.0%	_
Washing Chatums (District) 15	10570		VCI		UPL species	0%	x 5	0.0%	
Woody Vine Stratum (Plot size: 15	_)				Column Total	s: <u>105.0%</u>	(A)	380%	(B)
					Prevalence	Index = B/A =		3.62	
1.				_					
		= Total Co	ver		Hydrophytic	Vegetation Ind	icators:		
					N 1 - Rapid	Test for Hydrop	hytic Veg	etation	
					N 2 - Domir	nance Test if >5	0%		
						ence Index is ≤			
					data in Re	nological Adapt emarks or on a atic Hydrophytic	seperate : Vegetati	sheet) on (Explaiı	n)
					Indicators of hypresent, unless				st be
					Hydrophytic Vegetation Present?	Yes	No	x	
Remarks: UPLAND									

Color: % Color: % Type: Loc: Texture: Remarks:	Denth Ma	triv			Podov	Features						
O-20 10YR 3/2 100% Sandy Clay Loam Service C-Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: Pt=Pore Lining, M=Matrix (ydic Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Redox (S5) Coast Prairie Redoc (A16) Histosol (A2) Sandy Redox (S5) Dark Surface (S7) Histosol (A3) Stripped Matrix (S6) Dark Surface (S7) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Very Shallow Dark Surface (F12) Tinch Mark Surface (A10) Depleted Matrix (F2) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Dark Surface (F7) Redox Depressions (F8) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. **Strictive Layer (if present):** Type: None Popth (inches): NA Water-Stained Leaves (89) Surface Water (A1) Aquatic Fauna (813) Surface (B1) Hydrogen Suffide Godor (C1) Salvariaton (B3) True Aquatic Plants (B41) Depth (inches): NA Water Table (A2) Aquatic Fauna (B13) Surface Mater (B1) Presents (B1) Doriange Pattern (B10) Freecent fron Reduction in Tilled Soils (C6) Trinn Nuck Surface (C7) Aquatic Fauna (B43) Agal Mat or Crust (B4) Presence of Reduced fron (C4) Agal Mat or Crust (B4) Indicators (B4) Presence of Reduced fron (C4) Agal Mat or Crust (B4) Free Cent fron Reduction in Tilled Soils (C6) Trinn Deposits (B5) Doriange Pattern (B10) Other (Explain in Remarks) Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X aturation Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No Depth (inches): NA Wetland	(:l)			Color			Loc	Text	ture:	F	Remarks	
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)				Color.				Sandy C	lay Loam			
rdric Soil Indicators (Applicable to all LRRs, unless otherwise noted.) Histosoil (A1)	vno: C-Concontration D	-Donlotion I	DM-Dad	lucad Mat	riv CS-Covoro	ad or Coated Sa	nd Grains		Location:	DI - Doro Li	ning M-	Matriy
Histosol (A1)	· · · · · · · · · · · · · · · · · · ·				•		na Grains					Matrix
Histic Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) Iron-Manganese Masses (F12) Black Histic (A3) Stripped Matrix (S6) Iron-Manganese Masses (F12) Very Shallow Dark Surface (F12) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Very Shallow Dark Surface (F12) Thick Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Below Dark Surface (A11) Redox Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. **Setrictive Layer (If present):** Type: None Depth (inches): NA **Bemarks: UPLAND** **POROLOGY** **Vetland Hydrology Indicators** **Imary Indicators (minimum of one required; check all that apply) Surface Water (A1) Surface (A12)		plicable to a	all LRRs,			•				•	ic Soils	
Black Histic (A3)			=			rix (S4)						
Hydrogen Sulfide (A4) Stratified Layers (A5) Loamy Mucky Mineral (F1) Depleted Matrix (F2) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Depleted Delew Dark Surface (A11) Finick Dark Surface (A12) Depleted Delew Dark Surface (A11) Finick Dark Surface (A12) Depleted Delew Dark Surface (A12) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Depleted Dark Surface (A12) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Bestrictive Layer (if present): Type: None Depth (inches): NA Water Marks: UPLAND VDROLOGY VPROLOGY			-			5)					12)	
Stratified Layers (A5))	=						_			
Depleted Below Dark Surface (A11)		,									,	
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Pepleted Dark Surface (F7) Redox Depressions (F8) Pepleted Dark Surface (F7) Redox Depressions (F8) Reconciliation Reduction (D1) Redox Depressions (R8) Reconciliation Reduction (D4) Redox Depressions (R8) Reconciliation (D4) Reconciliation Reduction (D4) Redox Depressions (R8) Reconciliation Reduction (D4) Redox Depressions (R8) Reconciliation Reduction (D5) Redox Depressions (R8) Reconciliation Reduction (D6) Reconciliation Reduction (D6) Reconciliation (D7) Redox Depressions (R8) Reconciliation Reduction (D7) Redox Depressions (R8) Reconciliation Reduction (R8) Reconciliation Remarks) Redox Depression (R8) Reconciliation Redox (R8) Reconciliation Redox (R8) Reconciliation Remarks) Recondary Indicators (2 or more required; Cor more required;	2 cm Muck (A10)		-	Deple	eted Matrix (F	3)						
Sandy Mucky Mineral (S1) Redox Depressions (F8) wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if present): Type: None			.1)									
estrictive Layer (if present): Type: None Depth (inches): NA emarks: UPLAND PYDROLOGY Vetland Hydrology Indicators rimary Indicators (minimum of one required; check all that apply) Surface Water (A1) Surface Water (A1) Surface Water (A2) Aquatic Fauna (B13) Drainage Pattern (B10) Surface Soil Cracks (B6) High Water Table (A2) Aquatic Fauna (B13) Drainage Pattern (B10) Sediment Deposits (B1) Drift Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B5) Thin Muck Surface (C7) Iron Deposits (B5) Sparsely Vegetated Concave Surface (B8) Vetland Hydrology Present? Ves No X Depth (inches): NA Wetland Hydrology Present? Ves No X Depth (inches): NA Wetland Hydrology Present? Ves No X Wetland Hydrology Present? Ves No X Depth (inches): NA Wetland Hydrology Present? Ves No X No X No X No Depth (inches): NA No R Wetland Hydrology Present? Ves No X	•	•										
Type: None Depth (inches): NA emarks: UPLAND YDROLOGY Wetland Hydrology Indicators rimary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Aquatic Fauna (B13) Aguatic Plants (B14) Dori-Season Water Table (C2) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B2) Drift Deposits (B2) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Iron Deposits (B5) Iron Deposits (B5) Iron Deposits (B5) Iron Deposits (B5) Sparsely Vegetated Concave Surface (B8) Dotal magery (B7) Sparsely Vegetated Concave Surface (B8) Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA	Sandy Mucky Minera	l (S1)	-	Redo	x Depressions	s (F8)		-			ent, unle	SS
POROLOGY Vetland Hydrology Indicators rimary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) Migh Water Table (A2) Saturation (A3) True Aquatic Plants (B14) Sediment Deposits (B2) Drift Deposits (B2) Drift Deposits (B2) Drift Deposits (B3) Presence of Reduced Iron (C4) Mater Table (A2) Saturation (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Iron Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B5) Iron Deposits (B5) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA wetland the surface (C7) Inchesited Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Prese		nt):										
POROLOGY Vetland Hydrology Indicators Verland Hydrology Indicators Secondary Indicators (2 or more required) Secondary Indicators (2 or more required) Surface Soil Cracks (86) Drainage Pattern (B10) Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Iron Deposits (B5) Iron Deposits (B5) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Verland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X A User Table Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA	Type: None							Hydric Soil	Present?	Yes	No	Х
YDROLOGY Vetland Hydrology Indicators rimary Indicators (minimum of one required; check all that apply) Surface Water (A1) Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6) High Water Table (A2) Aquatic Fauna (B13) Drainage Pattern (B10) Dry-Season Water Table (C2) Water Marks (B1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation (X3) Sediment Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Iron Deposits (B5) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Water Table Present? Yes No X Depth (inches): NA Water Table Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Wetland Hydrology Present? Yes No X Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Wetland Hydrology Present? Yes No X Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA	Depth (inches): NA							-				
Sediment Deposits (B2) Dxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Depth (inches): Vater Table Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA												
Drift Deposits (B3)	Vetland Hydrology Indica rimary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3)	um of one re	equired;	W A: Tr	/ater-Stained L quatic Fauna (rue Aquatic Pla	B13) ants (B14)		Sec 	Surface So Drainage Dry-Seaso	oil Cracks (I Pattern (Bí on Water Ta	B6) L0) able (C2)	required
Iron Deposits (B5)	Vetland Hydrology Indication rimary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	um of one re	equired;	W Ad Tr H	/ater-Stained L quatic Fauna (rue Aquatic Pla ydrogen Sulfid	B13) ants (B14) le Odor (C1)	pots (C3)	Sec	Surface So Drainage Dry-Seaso Crayfish E	oil Cracks (I Pattern (B3 on Water Ta Burrows (C8	B6) 10) able (C2) 3)	
Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Gauge or Well Data (D9) Other (Explain in Remarks) ield Observations: urface Water Present? Yes No X Depth (inches): NA Vater Table Present? Yes No X Depth (inches): NA aturation Present? Yes No X Depth (inches): NA ncludes capillary fringe) Gauge or Well Data (D9) Other (Explain in Remarks) Wetland Hydrology Present? Yes No X Ma Wetland Hydrology Present? Yes No X No X	rimary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	um of one re	equired;	W Tr H	/ater-Stained L quatic Fauna (rue Aquatic Pla ydrogen Sulfid xidized Rhizosph	B13) ants (B14) de Odor (C1) neres on Living Ro	pots (C3)	Sec 	Surface Son Drainage Dry-Seaso Crayfish E Saturation	oil Cracks (I Pattern (Bí on Water Ta Burrows (CE Visible on A	B6) L0) able (C2) 3) erial Imag	ery (C9)
Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) ield Observations: urface Water Present? Yes No _X Depth (inches): _NA Vater Table Present? Yes No _X Depth (inches): _NA aturation Present? Yes No _X Depth (inches): _NA includes capillary fringe) Wetland Hydrology Present? Yes No _X includes Capillary fringe)	Vetland Hydrology Indica rimary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	um of one re	equired;	WW Ad Tr H O: Pr	Vater-Stained L quatic Fauna (rue Aquatic Pla ydrogen Sulfid xidized Rhizosph resence of Rec	B13) ants (B14) de Odor (C1) neres on Living Ro duced Iron (C4)		Sec	Surface Son Drainage Dry-Season Crayfish E Saturation Stunted o	oil Cracks (I Pattern (B2 on Water Ta Burrows (C8 Visible on A r Stressed	B6) 10) able (C2) 3) erial Imag Plants (D	ery (C9)
urface Water Present? Yes No X Depth (inches): NA Vater Table Present? Yes No X Depth (inches): NA aturation Present? Yes No X Depth (inches): NA ncludes capillary fringe) Wetland Hydrology Present? Yes No X NO X	Vetland Hydrology Indicatorismary Indicators (minima Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	um of one re 2)		W Tr Pr Re Th	Vater-Stained L quatic Fauna (rue Aquatic Pla ydrogen Sulfid xidized Rhizosph resence of Rec ecent Iron Red nin Muck Surfa	B13) ants (B14) de Odor (C1) neres on Living Ro duced Iron (C4) duction in Tilled ace (C7)		Sec	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp	oil Cracks (I Pattern (B: on Water Ti Burrows (CE Visible on A or Stressed hic Position	B6) L0) able (C2) B) erial Imag Plants (D n (D2)	ery (C9)
urface Water Present? Yes No X Depth (inches): NA Vater Table Present? Yes No X Depth (inches): NA aturation Present? Yes No X Depth (inches): NA ncludes capillary fringe) Wetland Hydrology Present? Yes No X NO X	Vetland Hydrology Indications (Minimary Indicators (Minimary Indicators (Minimary Indicators (Minimary Indicators (Mater Table (A2)) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae	um of one re 2) rial Imagery (E	B7)	W Tr Ht 	Vater-Stained L quatic Fauna (rue Aquatic Pla ydrogen Sulfid xidized Rhizosph resence of Rec ecent Iron Red nin Muck Surfa auge or Well E	B13) ants (B14) de Odor (C1) neres on Living Ro duced Iron (C4) duction in Tilled ace (C7) Data (D9)		Sec.	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp	oil Cracks (I Pattern (B: on Water Ti Burrows (CE Visible on A or Stressed hic Position	B6) L0) able (C2) B) erial Imag Plants (D n (D2)	ery (C9)
Vater Table Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA ncludes capillary fringe)	Vetland Hydrology Indication (minimary Indicators (minimary Indicators (minimary Indicators (Minimary Indicators (Mater Mater Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Ae Sparsely Vegetated Conc	um of one re 2) rial Imagery (E	B7)	W Tr Ht 	Vater-Stained L quatic Fauna (rue Aquatic Pla ydrogen Sulfid xidized Rhizosph resence of Rec ecent Iron Red nin Muck Surfa auge or Well E	B13) ants (B14) de Odor (C1) neres on Living Ro duced Iron (C4) duction in Tilled ace (C7) Data (D9)		Sec	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp	oil Cracks (I Pattern (B: on Water Ti Burrows (CE Visible on A or Stressed hic Position	B6) L0) able (C2) B) erial Imag Plants (D n (D2)	ery (C9)
aturation Present? Yes No X Depth (inches): NA	Vetland Hydrology Indication rimary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Ae Sparsely Vegetated Conce	um of one re 2) rial Imagery (E ave Surface (E	B7) B8)	WA(Tr	Vater-Stained L quatic Fauna (rue Aquatic Pla ydrogen Sulfid kidized Rhizosph resence of Rec ecent Iron Red nin Muck Surfa auge or Well E ther (Explain in	B13) ants (B14) de Odor (C1) neres on Living Ro duced Iron (C4) duction in Tilled ace (C7) Data (D9) n Remarks)		Sec	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp	oil Cracks (I Pattern (B: on Water Ti Burrows (CE Visible on A or Stressed hic Position	B6) L0) able (C2) B) erial Imag Plants (D n (D2)	ery (C9)
ncludes capillary fringe)	Vetland Hydrology Indication rimary Indicators (minimature Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae Sparsely Vegetated Conconsisted Observations: urface Water Present?	2)) rial Imagery (Eave Surface (E	B7) B8) No	WA(Tr	Vater-Stained Lequatic Fauna (True Aquatic Playdrogen Sulfid Existing the second Face Existing the second Face Existing the second Face Existing the second Face Explain in Explain	B13) ants (B14) de Odor (C1) neres on Living Roduced Iron (C4) duction in Tilled ace (C7) Data (D9) n Remarks)	Soils (C6)		Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp FAC-Neut	oil Cracks (i Pattern (B2 on Water Ta Burrows (C8 Visible on A or Stressed hic Position ral Test (D9	B6) L0) able (C2) B) erial Imag Plants (D n (D2) E)	ery (C9) 1)
estine perioder data isdeam onage monumo wen abital hindis diponor occuprocci it avallanto.	Vetland Hydrology Indication imary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Ae Sparsely Vegetated Conconications: urface Water Present?	um of one re 2) rial Imagery (E ave Surface (E Yes Yes	B7) B8) No No _	X Do	Vater-Stained Lequatic Fauna (True Aquatic Playdrogen Sulfid Axidized Rhizosphresence of Rececent Iron Red Anin Muck Surfa auge or Well E Ather (Explain in Explain in	B13) ants (B14) de Odor (C1) neres on Living Ro duced Iron (C4) duction in Tilled ace (C7) Data (D9) n Remarks) NA NA	Soils (C6)		Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp FAC-Neut	oil Cracks (i Pattern (B2 on Water Ta Burrows (C8 Visible on A or Stressed hic Position ral Test (D9	B6) L0) able (C2) B) erial Imag Plants (D n (D2) E)	ery (C9) 1)

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC Investigator(s): Paul SWARTZINSKI Landform (hillslope, terrace, etc.): channel Slope (%): <5% Lat: Soil Map Unit Name: Are climatic/hydrologic conditions on the site ty Are Vegetation No , Soil No , or Hydro		time of year?	Sec Local re Long:	Stion, Townselief (conce	tate: SD nship, Range: ave, convex, none) N' No (if r	: Convex Datur WI classification:	narks.)	3	
Are Vegetation No , Soil No , or Hydro	ology No	naturally pro	oblema	itic? (if	needed, explain in	Remarks.)			
SUMMARY OF FINDINGS – Attach site			ng poi	int locat	ions, transects,	, important re	autres, e	etc.	
Hydrophytic Vegetation Present? Yes _	X No			Is the San	npled Area				
_				within a V		Yes X No	ɔ		
Wetland Hydrology Present? Yes _	X No								
Remarks: PEM									
VEGETATION – Use scientific names of	plants				T				
<u>Tree Stratum</u> (Plot size: <u>30</u>)	Absolute % Cover	DominantS pecies?	Indica Status		Dominance Tes Number of Dor That Are OBL, F	ninant Species	2	!	(A)
1	-				Total Number of		2)	(B)
Sapling/Shrub Stratum (Plot size: 15)	_ = Total Co	ver		Species Across Percent of Dom That Are OBL, F	ninant Species	100.		(A/B)
1.					Dunanda a sa la d				
	-	= Total Co	ver			ex Worksheet:			
Horb Stratum (Blot size: E		_ = 10tal co	VCI		Total % Cover o		Multiply		_
Herb Stratum (Plot size: 5)	750/	V	FA 61		OBL species	15%	x 11	15.0%	_
 Phalaris arundinacea Spartina pectinata 	75% 25%	Y Y	FAC\ FAC\		FACW species	100%	x 22	00.0%	_
3. Typha angustifolia	15%	N	OB		FAC species	0%	x 3	0.0%	_
				<u> </u>	FACU species	0%	x 4	0.0%	<u> </u>
4	4450/				UPL species	0%	x 5	0.0%	_
	115%	= Total Co	ver		Column Totals:	115.0%	(A)	215%	(B)
Woody Vine Stratum (Plot size: 15	_)				Prevalence I	ndex = B/A =	1.8	7	
1.					Hydrophytic Ve	egetation Indicat	ors:		
		= Total Co	ver		Y 1 - Rapid To	est for Hydrophy	tic Vegeta [.]	tion	
		_			l — ·	nce Test if >50%			
						nce Index is ≤ 3.0	ı		
					Y 4 - Morpho	ological Adaptatic marks or on a sep ic Hydrophytic Ve	ons (Provid	et)	
					Indicators of hydr present, unless di		•	ogy mus	t be
					Hydrophytic Vegetation Present?	Yes <u>X</u>	No		
Remarks: PEM					1				

Profile Description: (Describe	to the de	epth ne	eded to	document the i	indicator or co	nfirm the a	bsence of indicator	
Depth Matrix				Redox F	eatures			
(inches) Color:	%		Color	: %	Type:	Loc:	Texture:	Remarks:
0-20 10YR 2/1	100%	6					Clay Loam	
Type: C=Concentration, D=De	oletion, R	M=Red	uced Ma	trix, CS=Covere	d or Coated Sa	nd Grains	Location:	PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (Applic	able to a	ll LRRs.	unless o	therwise noted	i.)		Indicators for Probler	natic Hydric Soils
Histosol (A1)		,		dy Gleyed Matri			Coast Prairie Red	•
Histic Epipedon (A2)		_		dy Redox (S5)	IX (34)		Dark Surface (S7)	
Black Histic (A3)		_		ped Matrix (S6)		Iron-Manganese	
Hydrogen Sulfide (A4)		_		ny Mucky Mine			Very Shallow Dar	
Stratified Layers (A5)		_	Loar	ny Gleyed Matr	ix (F2)		Other (Explain in	Remarks)
2 cm Muck (A10)		_		leted Matrix (F3				
X Depleted Below Dark Sur	face (A11	.) _		ox Dark Surface				
Thick Dark Surface (A12)Sandy Mucky Mineral (S1)	-		leted Dark Surfa ox Depressions			Indicators of hydroph wetland hydrology mu disturbed or problema	ust be present, unless
Restrictive Layer (if present):							<u> </u>	
Type: None							Hydric Soil Present?	Yes X No
Depth (inches): NA							,	<u></u>
Remarks:						ıı.		
HYDROLOGY								
Wetland Hydrology Indicator	3							
Primary Indicators (minimum	of one red	quired;	check all	that apply)			Secondary Inc	dicators (2 or more required)
Surface Water (A1)				Vater-Stained L			Surface So	oil Cracks (B6)
High Water Table (A2)				Aquatic Fauna (E			~	Pattern (B10)
X Saturation (A3)				rue Aquatic Pla				on Water Table (C2)
Water Marks (B1)				Hydrogen Sulfid	, ,	-+- (C2)		Burrows (C8)
Sediment Deposits (B2)				Oxidized Rhizosph Presence of Red		ots (C3)		Visible on Aerial Imagery (C9)
Drift Deposits (B3) Algal Mat or Crust (B4)				Recent Iron Red	, ,	Soils (C6)		r Stressed Plants (D1) hic Position (D2)
Iron Deposits (B5)				hin Muck Surfa		30113 (CO)	X FAC-Neut	
Inundation Visible on Aerial I	nagery (B7	7)		Gauge or Well D	` ,		<u></u>	141 1636 (23)
Sparsely Vegetated Concave	Surface (B8	3)		Other (Explain in				
Field Observations:		N.I.	· -	Negation (in the N				
	es			Depth (inches):	NA			
	es			Depth (inches):	NA	Wetland	d Hydrology Present?	Yes <u>X</u> No
(includes capillary fringe)	es X			Depth (inches):	8			
Describe Recorded Data (stream	m guage,	, monito	oring we	ll, aerial photos	, previous insp	ections), if a	available:	
Remarks:								

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC		City/Cour	nty: <u>Deue</u>		y ate: SD		pling Dat	-	/2018 20
Investigator(s): Paul SWARTZINSKI			Sectio	n, Towi	nship, Range:		,,		
Landform (hillslope, terrace, etc.): channel		I			ive, convex, none): Linear Slo			
Slope (%): <5% Lat:						-	um: NA	D83	
Soil Map Unit Name:						IWI classificatio	n:		
Are climatic/hydrologic conditions on the site to	pical for this	time of year?	? Yes	Χ	No (if	no, explain in R	emarks.)		
Are Vegetation No , Soil No , or Hydr	ology No	significantly	disturbed	d? Ar	e "Normal Circum	stances" preser	nt? Yes	X	No
Are Vegetation No , Soil No , or Hydr	ology No	naturally pro	oblematic [*]	? (if	needed, explain ii	n Remarks.)			
SUMMARY OF FINDINGS – Attach site	map show	ing sampli	ng point	locat	ions. transects	. important	feautre	s. etc.	
	No	•	6 1		,	,,		,	
			ls t	the San	pled Area				
-		X			Vetland?	Yes	No X		
Wetland Hydrology Present? Yes	No	X							
Remarks: UPLAND									
VEGETATION – Use scientific names of	plants								
	Absolute	DominantS	Indicator	r	Dominance Te	est Worksheet:			
<u>Tree Stratum</u> (Plot size: <u>30</u>)	% Cover	pecies?	Status			minant Species			
						FACW, or FAC:		0	(A)
1					Total Number				
		= Total Co	ver		Species Across			1	(B)
Sapling/Shrub Stratum (Plot size: 15)					minant Species FACW, or FAC:		0.0%	(A/B)
1.									
	-				Prevalence Inc	dex Worksheet	:		
		= Total Co	ver		Total % Cover	of:	Mult	iply by:	
Herb Stratum (Plot size: 5					OBL species	0%	x 1	0.0%	
1. Bromus inermis	85%	Υ	FACU		FACW species	10%	x 2	20.0%	
2. Phalaris arundinacea	10%	N	FACW		FAC species	0%	x 3	0.0%	
3.					FACU species		x 4	340.0%	
	95%	= Total Co	ver		· ·				_
Woody Vine Stratum (Plot size: 15	1	_			UPL species	0%	_ x 5 _	0.0%	
woody vine stratum (Flot size. 15	_/				Column Totals	95.0%	(A)	360%	(B)
					Prevalence	Index = B/A =		3.79	
1	-				Harden alle attack	(
		= Total Co	ver		Hydropnytic v	egetation Indic	cators:		
					<u>N</u> 1 - Rapid T	Test for Hydropl	nytic Veg	etation	
					N 2 - Domina	ance Test if >50	%		
					N 3 - Prevale	ence Index is ≤ 3	3.0		
					N 4 - Morph	ological Adapta marks or on a s	tions (Pr		oorting
						tic Hydrophytic			n)
					Indicators of hyd	ric soil and wet	land hyd	rology mu	st be
					present, unless d	listurbed or pro	blematic		
					Hydrophytic Vegetation	Yes	No	x	
					Present?	· - <u></u>			
Remarks: UPLAND									

Depth Ma (inches) Color:	ITIX			Darley 1	Continue				
	%		Color:	Redox I	Features	Loc	 Texture:	Remarks	s:
0-20 10YR 3/2			COIOT:		Type:	Loc:	Sandy Clay Loam		
pe: C=Concentration, D=	Depletion, I	RM=Red	uced Matri	x, CS=Covere	d or Coated Sa	nd Grains	Location:	PL=Pore Lining, M=	=Matrix
dric Soil Indicators: (Ap	plicable to a	all LRRs,	unless oth	erwise noted	I.)		Indicators for Probler	matic Hydric Soils	
Histosol (A1)		_		Gleyed Matr	ix (S4)		Coast Prairie Red		
Histic Epipedon (A2)		_		Redox (S5)	\		Dark Surface (S7)		
Black Histic (A3) Hydrogen Sulfide (A4)	١	-		ed Matrix (S6 Mucky Mine			Iron-Manganese Very Shallow Dar		
Stratified Layers (A5))			Gleyed Mati			Other (Explain in		
2 cm Muck (A10)		_		ed Matrix (F				,	
Depleted Below Dark	Surface (A1	1)		Dark Surface					
Thick Dark Surface (A	12)	_	Deplet	ed Dark Surf	ace (F7)		Indicators of hydroph	ytic vegetation and	
Sandy Mucky Mineral	(S1)	_	Redox	Depressions	(F8)		wetland hydrology mudisturbed or problema	ust be present, unle	
estrictive Layer (if prese	nt):						·		
Type: None							Hydric Soil Present?	Yes No	Х
Depth (inches): NA			_				yana son rresent:	103140	
emarks:						,			
	itors								
Vetland Hydrology Indica		equired;	check all th	nat apply)				dicators (2 or more	required
Vetland Hydrology Indica rimary Indicators (minimu Surface Water (A1)	um of one re	equired;	Wa	ter-Stained L			Surface S	oil Cracks (B6)	required
Vetland Hydrology Indica rimary Indicators (minimu Surface Water (A1) High Water Table (A2)	um of one re	equired;	Wa	ter-Stained L uatic Fauna (I	B13)		Surface Son Drainage	oil Cracks (B6) Pattern (B10)	
Vetland Hydrology Indica Primary Indicators (minimonal Surface Water (A1) High Water Table (A2) Saturation (A3)	um of one re	equired;	Wa Aqı Tru	ter-Stained L uatic Fauna (I e Aquatic Pla	B13) ints (B14)		Surface So Drainage Dry-Seaso	oil Cracks (B6) Pattern (B10) on Water Table (C2	
Vetland Hydrology Indica Primary Indicators (minimumous Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	um of one re	equired;	Wa Aqı Tru Hyo	ter-Stained L uatic Fauna (I e Aquatic Pla drogen Sulfid	B13) ints (B14) e Odor (C1)	pots (C3)	Surface Some Drainage Dry-Season Crayfish E	oil Cracks (B6) Pattern (B10) on Water Table (C2 Burrows (C8))
Vetland Hydrology Indica Primary Indicators (minimumous Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	um of one re	equired;	Wa Aqı Tru Hyu Oxi	ter-Stained L uatic Fauna (I e Aquatic Pla drogen Sulfid dized Rhizosph	B13) ints (B14)	pots (C3)	Surface Some Drainage Dry-Season Crayfish E	oil Cracks (B6) Pattern (B10) on Water Table (C2) gery (C9)
High Water Table (A2) Saturation (A3) Water Marks (B1)	um of one re	equired;	Wa Aqı Tru Hyo Oxi	ter-Stained L uatic Fauna (I e Aquatic Pla drogen Sulfid dized Rhizosph sence of Red	B13) Ints (B14) e Odor (C1) Ieres on Living Ro		Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of	oil Cracks (B6) Pattern (B10) on Water Table (C2 Burrows (C8) Visible on Aerial Ima) gery (C9)
Vetland Hydrology Indica Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	um of one re	equired;	Wa Tru Hyu Oxi Pre Red	ter-Stained L uatic Fauna (I e Aquatic Pla drogen Sulfid dized Rhizosph sence of Red	B13) Ints (B14) e Odor (C1) Peres on Living Rouced Iron (C4) Suction in Tilled		Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (B6) Pattern (B10) on Water Table (C2 Burrows (C8) Visible on Aerial Ima _l or Stressed Plants (I) gery (C9)
Vetland Hydrology Indication in Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer	um of one re 2) (a) (b) (c) (c) (d)	37)	Wa Tru Hyo Oxi Pre Reo Thi Ga	ter-Stained L uatic Fauna (I e Aquatic Pla drogen Sulfid dized Rhizosph sence of Red cent Iron Red n Muck Surfa uge or Well D	B13) Ints (B14) e Odor (C1) Ieres on Living Roluced Iron (C4) Iuction in Tilled Ice (C7) Iotata (D9)		Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (B6) Pattern (B10) on Water Table (C2 Burrows (C8) Visible on Aerial Imagor Stressed Plants (I hic Position (D2)) gery (C9)
Vetland Hydrology Indica rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	um of one re 2) (a) (b) (c) (c) (d)	37)	Wa Tru Hyo Oxi Pre Reo Thi Ga	ter-Stained L uatic Fauna (I e Aquatic Pla drogen Sulfid dized Rhizosph sence of Red cent Iron Red n Muck Surfa	B13) Ints (B14) e Odor (C1) Ieres on Living Roluced Iron (C4) Iuction in Tilled Ice (C7) Iotata (D9)		Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (B6) Pattern (B10) on Water Table (C2 Burrows (C8) Visible on Aerial Imagor Stressed Plants (I hic Position (D2)) gery (C9)
Vetland Hydrology Indication in Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer	um of one re 2) (a) (b) (c) (c) (d)	37)	Wa Tru Hyo Oxi Pre Reo Thi Ga	ter-Stained L uatic Fauna (I e Aquatic Pla drogen Sulfid dized Rhizosph sence of Red cent Iron Red n Muck Surfa uge or Well D	B13) Ints (B14) e Odor (C1) Ieres on Living Roluced Iron (C4) Iuction in Tilled Ice (C7) Iotata (D9)		Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (B6) Pattern (B10) on Water Table (C2 Burrows (C8) Visible on Aerial Imagor Stressed Plants (I hic Position (D2)) gery (C9)
Vetland Hydrology Indica rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Sparsely Vegetated Conco	um of one re 2) rial Imagery (B ave Surface (B	37) 38)	Ma Aqı Tru Hyı Oxi Pre Rec Thi Gai	ater-Stained L uatic Fauna (I e Aquatic Pla drogen Sulfid dized Rhizosph esence of Red cent Iron Red n Muck Surfa uge or Well D ner (Explain in	B13) Ints (B14) e Odor (C1) Interes on Living Roluced Iron (C4) Interes on Tilled Interes (C7) Interes (D9) In Remarks)		Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (B6) Pattern (B10) on Water Table (C2 Burrows (C8) Visible on Aerial Imagor Stressed Plants (I hic Position (D2)) gery (C9)
Vetland Hydrology Indical rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Sparsely Vegetated Conca	um of one re 2) rial Imagery (E ave Surface (E	37) 38) No	Ma Aqı Tru Hyu Oxi Pre Rec Oth	ter-Stained Luatic Fauna (I de Aquatic Pladrogen Sulfid dized Rhizosph esence of Red cent Iron Red in Muck Surfa uge or Well Di ner (Explain in	B13) Ints (B14) e Odor (C1) Interes on Living Reduced Iron (C4) Interes on Tilled Interes (C7) Interes (D9) In Remarks) NA	Soils (C6)	Surface Some Drainage Dry-Season Crayfish Esturation Stunted of Geomorp FAC-Neut	oil Cracks (B6) Pattern (B10) on Water Table (C2 Burrows (C8) Visible on Aerial Imagor Stressed Plants (I hic Position (D2)) gery (C9)
Vetland Hydrology Indical rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Sparsely Vegetated Conca	um of one re 2) rial Imagery (E ave Surface (E Yes Yes	37) 38) No No	Ma Aqq Tru Hyv Oxi Pre Rec Thi Gar Oth	ater-Stained Lenatic Fauna (Inter-Stained Lenatic Fauna (Inter-Stained Lenatic Pladrogen Sulfid dized Rhizosphesence of Reducent Iron Redun Muck Surfauge or Well Dener (Explain inter-Stained Lenatic Iron Reducent	B13) Ints (B14) e Odor (C1) Interes on Living Roluced Iron (C4) Interes on Living Roluced Iron (C4) Interes on Living Roluced Iron (C7) Interes on Living Roluced Iron (C7) Interes on Living Roluced Iron (C7) Interes on Living Roluced Iron (C4) In	Soils (C6)	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (B6) Pattern (B10) on Water Table (C2 Burrows (C8) Visible on Aerial Imagor Stressed Plants (I hic Position (D2)) gery (C9) D1)
Vetland Hydrology Indical rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Sparsely Vegetated Conca	um of one re 2) rial Imagery (E ave Surface (E Yes Yes Yes	37) 38) No _ No	X De	ater-Stained Legatic Fauna (Inter-Stained Leg	B13) Ints (B14) e Odor (C1) Interes on Living Rouced Iron (C4) Interes on Living Rouced Iron (C4) Interes on Living Rouced Iron (C7) Interes on Living Rouced Iron (C7) Interes on Living Rouced Iron (C7) Interes on Living Rouced Iron (C4) Interes on Living Rouce	Soils (C6)	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted on Geomorp FAC-Neut	oil Cracks (B6) Pattern (B10) on Water Table (C2 Burrows (C8) Visible on Aerial Imagor Stressed Plants (I chic Position (D2) cral Test (D5)) gery (C9) D1)

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC Investigator(s): Paul SWARTZINSKI		City/Cour	-	S	ty tate: <u>SD</u> rnship, Range:		ling Date		/2018 21
Landform (hillslope, terrace, etc.): channel		l			ave, convex, none):	Convex			
Slope (%): <5% Lat:							m: NAD	83	
Soil Map Unit Name:						VI classification	:		
Are climatic/hydrologic conditions on the site ty	pical for this	time of year?	? Yes _	Χ	No (if no	o, explain in Re	marks.)		
Are Vegetation $\underline{ \text{No}}$, Soil $\underline{ \text{No}}$, or Hydro					re "Normal Circumst	tances" present	? Yes	X	No
Are Vegetation No , Soil No , or Hydro	ology No	naturally pro	oblemat	tic? (if	needed, explain in	Remarks.)			
SUMMARY OF FINDINGS – Attach site	map show	ing samplii	ng poir	nt locat	tions, transects,	important fo	eautres	, etc.	
						•		<u>-</u>	
			Is	s the Sar	mpled Area				
Wetland Hydrology Present? Yes		·	v	within a	Wetland?	Yes X N	ю		
	<u> </u>								
Remarks: PEM									
VEGETATION – Use scientific names of	•								
<u>Tree Stratum</u> (Plot size: 30)	Absolute % Cover	DominantS pecies?	Indicat Status		Dominance Tes	t Worksheet:			
,	70 COVE	pecies:	Status		Number of Dom	•		2	(4)
1					That Are OBL, F			2	(A)
1	-				Total Number of			2	(B)
		= Total Co	ver		Species Across A		-		(6)
Sapling/Shrub Stratum (Plot size: 15)				Percent of Dom That Are OBL, F	•	10	0.0%	(A/B)
1					Prevalence Inde	ex Worksheet:			
		= Total Co	ver		Total % Cover o		Multip	olv bv:	
Herb Stratum (Plot size: 5)					OBL species	0%	x 1	0.0%	_
1. Phalaris arundinacea	85%	Υ	FACW	V		=======================================	_		_
Spartina pectinata	25%	Y	FACW		FACW species	110%	x 2	220.0%	
3.					FAC species	0%	x 3	0.0%	
5					FACU species	0%	x 4	0.0%	_
	110%	= Total Co	ver		UPL species	0%	x 5	0.0%	
Woody Vine Stratum (Plot size: 15	_)				Column Totals:	110.0%	(A)	220%	(B)
					Prevalence In	idex = B/A =	2	.00	
1						·			_
		= Total Co	ver		Hydrophytic Ve	getation Indica	tors:		
					Y 1 - Rapid Te	st for Hydrophy	tic Vege	tation	
					Y 2 - Dominar	nce Test if >50%	,		
					Y 3 - Prevalen				
								.:	
					Y 4 - Morphol data in Rem N Problematio	arks or on a se	perate sh	eet)	-
					Indicators of hydri		_		
					present, unless dis			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
					Hydrophytic				
					Vegetation Present?	Yes X	_No		
Remarks: PEM									

Profile Description: (Desc	ribe to the c	depth ne	eeded to	document the	indicator or co	nfirm the a	bsence of indicator	
Depth Ma	itrix			Redox I	Features			
(inches) Color:	%		Colo	r: %	Type:	Loc:	Texture:	Remarks:
0-20 10YR 3/2	100	1%					Clay Loam	
Type: C=Concentration, D	=Depletion,	RM=Rec	duced Ma	atrix, CS=Covere	d or Coated Sa	nd Grains	Location:	PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (Ap	policable to a	all LRRs.	. unless c	otherwise noted	······································		Indicators for Probler	natic Hydric Soils
Histosol (A1)	, p			dy Gleyed Matri			Coast Prairie Red	•
Histic Epipedon (A2)		,		dy Redox (S5)	IX (34)		Dark Surface (S7)	
Black Histic (A3)				pped Matrix (S6	5)		Iron-Manganese	
Hydrogen Sulfide (A4)			my Mucky Mine			Very Shallow Dar	
Stratified Layers (A5)			Loa	my Gleyed Matr	rix (F2)		Other (Explain in	Remarks)
2 cm Muck (A10)				oleted Matrix (F				
X Depleted Below Dark		1)		lox Dark Surface				
Thick Dark Surface (A	-			oleted Dark Surfa lox Depressions			Indicators of hydroph wetland hydrology mu disturbed or problema	ust be present, unless
Restrictive Layer (if prese	nt):							
Type: None			_				Hydric Soil Present?	Yes X No
Depth (inches): NA			_				•	
Remarks:						·		
HYDROLOGY								
Wetland Hydrology Indica	ators							
Primary Indicators (minim	um of one re	equired;	; check al	ll that apply)			Secondary Inc	dicators (2 or more required)
Surface Water (A1)				Water-Stained L	, ,		Surface S	oil Cracks (B6)
High Water Table (A2)				Aquatic Fauna (I			_	Pattern (B10)
X Saturation (A3)				True Aquatic Pla				on Water Table (C2)
Water Marks (B1)	• •			Hydrogen Sulfid	, ,	note (C2)		Burrows (C8)
Sediment Deposits (B)	2)			Oxidized Rhizosph Presence of Red		oots (C3)		Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Drift Deposits (B3) Algal Mat or Crust (B4)	1			Recent Iron Red	, ,	Soils (C6)		hic Position (D2)
Iron Deposits (B5)	,			Thin Muck Surfa		30113 (CO)	X FAC-Neut	
χ Inundation Visible on Ae	rial Imagery (E	37)		Gauge or Well D	. ,		<u></u>	
Sparsely Vegetated Cond	ave Surface (E	38)		Other (Explain ir				
Field Observations:	.,		.,	.				
Surface Water Present?	Yes			Depth (inches):	NA			
Water Table Present?	Yes			Depth (inches):	NA	Wetland	d Hydrology Present?	Yes X No
Saturation Present? (includes capillary fringe)	Yes X			Depth (inches):	12			
Describe Recorded Data (stream guage	e, monit	toring we	ell, aerial photos	, previous insp	ections), if a	available:	
Remarks:								

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC		City/Cour	nty: <u>Deue</u>		tate: SD		pling Dat	-	/2018 22
Investigator(s): Paul SWARTZINSKI			Sectio	on, Tow	nship, Range:		,,		
Landform (hillslope, terrace, etc.): channel		ı			ave, convex, none): Linear Sl			
Slope (%): <5% Lat:						·	um: NA	.D83	
Soil Map Unit Name:						IWI classificatio	n:		
Are climatic/hydrologic conditions on the site ty	pical for this	time of year?	? Yes	Χ	No (if	no, explain in R	emarks.)		
Are Vegetation No , Soil No , or Hydr	ology No	significantly	disturbed	d? Ar	e "Normal Circum	stances" prese	nt? Yes	X	No
Are Vegetation <u>No</u> , Soil <u>No</u> , or Hydr	ology No	naturally pro	oblematio	c? (if	needed, explain ir	n Remarks.)			
SUMMARY OF FINDINGS – Attach site	map show	ing samplii	ng point	t locat	ions. transects	. important	feautre	s. etc.	
	No	•			,	, ,		<u>-, -, -, -, -, -, -, -, -, -, -, -, -, -</u>	
			ls ·	the San	npled Area				
		X			Wetland?	Yes	No X		
Wetland Hydrology Present? Yes _	No	X							
Remarks: UPLAND									
VEGETATION – Use scientific names of	plants								
	Absolute	DominantS	Indicato	r	Dominance Te	est Worksheet:			
<u>Tree Stratum</u> (Plot size: <u>30</u>)	% Cover	pecies?	Status		Number of Do	minant Species			
						FACW, or FAC:		1	(A)
1					Total Number				
		= Total Co	ver		Species Across	s All Strata:		2	(B)
Sapling/Shrub Stratum (Plot size: 15)					minant Species FACW, or FAC:		50.0%	(A/B)
1.									
	-				Prevalence Inc	dex Worksheet	:		
		= Total Co	ver		Total % Cover	of:	Mult	iply by:	
Herb Stratum (Plot size: 5					OBL species	0%	x 1	0.0%	
1. Bromus inermis	75%	Υ	FACU		FACW species	25%	x 2	50.0%	
2. Phalaris arundinacea	25%	Υ	FACW	_	FAC species	0%	_ x 3	0.0%	
3.					· ·	-			
	100%	= Total Cov	ver		FACU species		_ x 4	300.0%	_
Woody Vino Stratum (Diet size) 15	1		• • •		UPL species	0%	_ x 5 _	0.0%	
Woody Vine Stratum (Plot size: 15	_)				Column Totals	: 100.0%	(A)	350%	(B)
					Prevalence l	Index = B/A =		3.50	
1.	-			_			-		
		= Total Co	ver		Hydrophytic V	egetation Indi	cators:		
					N 1 - Rapid T	Test for Hydrop	nytic Veg	etation	
					N 2 - Domina	ance Test if >50	%		
						ence Index is ≤ 3			
					data in Re	ological Adapta marks or on a s tic Hydrophytic	eperate s Vegetati	sheet) on (Explair	n)
					Indicators of hyd present, unless d				st be
					Hydrophytic Vegetation Present?	Yes	No	<u>x</u>	
Remarks: UPLAND									

Popt	Danath	4			P 1							
O-20 10YR 4/2 109% Sandy Clay Loam Location: PL-Pore Lining, M=Matrix ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Sandy Redox (S5) Black Histic (A3) Stroped Matrix (S6) Loamy Mucky Mineral (F1) Depleted Matrix (F2) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (F1) Sandy Mucky Mineral (S1) Sandy Redox Depressions (F8) Personal Matrix (F2) Depleted Dark Surface (F6) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sediment Reposits (B2) Personal Mucky Mineral (S1) Setricitive Layer (If present): Type: None Depth (inches): NA marris: **Proper Matrix (F2) Depleted Dark Surface (F6) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sediment Reposits (B2) Down Mucky Mineral (S1) Sediment Peposits (B2) Down Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sediment Deposits (B2) Down Mucky Mineral (S1) Redox Depressions (F8) **Hydric Soil Present?** Yes No X **Presence of Reduced For (C4) Sediment Deposits (B2) Down Mucky Mineral (S1) Redox Depressions (F8) **Hydric Soil Present?** Yes No X **Presence of Reduced For (C4) Sediment Deposits (B3) Presence of Reduced For (C4) Sediment Deposits (B3) Presence of Reduced For (C4) Recent Fron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) FAC-Neutral Test (D5) Thin Muck Surface (C7) FAC-Neutral Test (D5) Redo Deposits (B3) Other (Explain in Remarks) **Wetland Hydrology Present?** Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA	· · · · · · · · · · · · · · · ·			Cala			1:	Text	ture:	F	Remarks	•
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)				COIOI	<u> </u>	% Type:	LOC:			•	· · · · · · · · · · · · · · · · · · ·	•
ydric Soil Indicators (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	0-20 101R 4/2	100	70					Sandy C	lay Loaili			
Histosol (A1)	pe: C=Concentration, D=	Depletion, F	RM=Red	luced Ma	trix, CS=Cove	red or Coated Sa	nd Grains		Location:	PL=Pore Li	ning, M=	Matrix
Histic Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) Black Histic (A3) Stripped Matrix (S6) Incommangers en Masses (F12) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Verry Shallow Dark Surface (TF12) Stratified Layers (A5) Loamy (Geyed Matrix (F2) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Redox Depressions (F8) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Type: None Depth (inches): NA Bemarks: PROCLOGY	ydric Soil Indicators: (Ap	plicable to a	all LRRs,	unless o	therwise not	ed.)		Indicators f	for Probler	natic Hydr	ic Soils	
Depleted Below Dark Surface (A12) Sandy Mucky Mineral (S1) Secondary Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Setrictive Layer (if present): Type: None Depth (inches): NA emarks: YDROLOGY Vetland Hydrology Indicators rimary Indicators (minimum of one required; check all that apply) Surface Water (A1) Surface Water (A1) Aquatic Fauna (B13) Surface Water (A2) Surface Water (A3) True Aquatic Fauna (B13) Saturation (A3) True Aquatic Fauna (B13) Surface Water (B1) Agiand Hydrology Indicators (C2) Crayfish Burrows (C8) Sediment Deposits (B2) Dorift Deposits (B3) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Iron Deposits (B5) True Aquatice (T7) Algal Mat or Crust (B4) Iron Deposits (B5) Tribin Muck Surface (C7) Iron Deposits (B5) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA	Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5))	-	San Strij Loai Loai	dy Redox (S5) oped Matrix (S my Mucky Mi my Gleyed Ma	S6) neral (F1) atrix (F2)		Dark S Iron-N Very S	urface (S7) Ianganese hallow Dar) Masses (F: k Surface (
Type: None Depth (inches): NA WA WA PAROLOGY Wetland Hydrology Indicators rimary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Agaid Mater (A1) Sediment Deposits (B2) Ovidized Rhizospheres on Living Roots (C3) Sediment Deposits (B2) Ovidized Rhizospheres on Living Roots (C3) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B5) Thin Muck Surface (C7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA	Depleted Below Dark Thick Dark Surface (A	12)	1)	Red Dep	ox Dark Surfa leted Dark Su	ce (F6) rface (F7)		wetland hy	drology mu	ust be pres		ss
POROLOGY Vetland Hydrology Indicators Irimary Indicators (minimum of one required; check all that apply) Surface Water (A1) Surface Water (A1) Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Present (A2) Water Marks (B1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Algal Mat or Crust (B4) Agaet Iron Reduction in Tilled Soils (C6) Iron Deposits (B5) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (87) Sparsely Vegetated Concave Surface (B8) Popth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Saturation Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Wetland Hydrology Present? Yes No X Saturation Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Wetland Hydrology Present? Yes No X Saturation Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Saturation Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Saturation Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X		nt):										
PROLOGY Vetland Hydrology Indicators rimary Indicators (minimum of one required; check all that apply) Surface Water (A1) Mater-Stained Leaves (B9) Surface Soil Cracks (B6) High Water Table (A2) Aquatic Plants (B13) Drainage Pattern (B10) Saturation (A3) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Drift Deposits (B2) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mato r Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B5) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Drift Deposits (B3) Other (Explain in Remarks) Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X attraction Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X De				_				Hydric Soil	Present?	Yes	No	X
rimary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Vater Marks (B8) Spepth (inches): Vater Table Present? Yes No X Depth (inches): NA Water-Stained Leaves (B9) Aquatic Fauna (B13) Drainage Pattern (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5) FAC-Neutral Test (D5) FAC-Neutral Test (D5) NA Wetland Hydrology Present? Yes No No No												
Surface Water (A1)												
Saturation (A3)	etland Hydrology Indica		equired:	check al	I that apply)			Sec	condary Inc	dicators (2	or more	required)
Water Marks (B1)	Vetland Hydrology Indication		equired;			d Leaves (B9)		Sec				required)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Pesence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) FAC-Neutral Test (D5) Gauge or Well Data (D9) Other (Explain in Remarks) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5) Gauge or Well Data (D9) Other (Explain in Remarks) Peld Observations: Urface Water Present? Yes No X Depth (inches): NA Vater Table Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA	/etland Hydrology Indica rimary Indicators (minimo Surface Water (A1)	um of one re	equired;	}	Water-Stained Aquatic Fauna	(B13)		Sec —	Surface So Drainage	oil Cracks (Pattern (B	B6) 10)	required)
Drift Deposits (B3)	Vetland Hydrology Indicarimary Indicators (minimous Surface Water (A1) High Water Table (A2) Saturation (A3)	um of one re	equired;	\ 1	Water-Stained Aquatic Fauna Frue Aquatic F	(B13) Plants (B14)		Sec	Surface So Drainage Dry-Seaso	oil Cracks (Pattern (Ba on Water T	B6) 10) able (C2)	required)
Algal Mat or Crust (B4)	Vetland Hydrology Indicarimary Indicators (minimomomomomomomomomomomomomomomomomomo	um of one re	equired;	\ !	Water-Stained Aquatic Fauna Frue Aquatic F Hydrogen Sulf	i (B13) Plants (B14) iide Odor (C1)	pots (C2)	Sec 	Surface So Drainage Dry-Seaso Crayfish E	oil Cracks (Pattern (B: on Water T Burrows (C	B6) 10) able (C2) 8)	
Iron Deposits (B5)	Vetland Hydrology Indica rimary Indicators (minimon Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2	um of one re	equired;	\ 	Water-Stained Aquatic Fauna Frue Aquatic F Hydrogen Sulf Oxidized Rhizos	i (B13) Plants (B14) iide Odor (C1) pheres on Living Ro	pots (C3)	Sec	Surface Son Drainage Dry-Seaso Crayfish E Saturation	oil Cracks (Pattern (B: on Water T Burrows (CE Visible on A	B6) 10) able (C2) 8) erial Imag	ery (C9)
urface Water Present? Yes No _X _ Depth (inches): NA Vater Table Present? Yes No _X _ Depth (inches): NA Waturation Present? Yes No _X _ Depth (inches): NA	Vetland Hydrology Indica rimary Indicators (minimi Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	um of one re	equired;		Water-Stained Aquatic Fauna Frue Aquatic F Hydrogen Sulf Dxidized Rhizos Presence of Ro	(B13) Plants (B14) Fide Odor (C1) pheres on Living Roed		Sec	Surface Son Drainage Dry-Season Crayfish E Saturation Stunted o	oil Cracks (Pattern (B: on Water T Burrows (CB Visible on A or Stressed	B6) 10) able (C2) 8) erial Imag Plants (D	ery (C9)
urface Water Present? Yes No _X Depth (inches): NA Vater Table Present? Yes No _X Depth (inches): NA Wetland Hydrology Present? Yes No _X Depth (inches): NA NA NA NO _X NA NO _X NA	Vetland Hydrology Indicarimary Indicators (minimary Indicators (minimary Indicators (Minimary Indicators) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer	um of one re	37)		Water-Stained Aquatic Fauna Frue Aquatic F Hydrogen Sulf Dxidized Rhizos Presence of Re Recent Iron Re Thin Muck Sur Gauge or Well	(B13) Plants (B14) Fide Odor (C1) pheres on Living Reduced Iron (C4) eduction in Tilled face (C7)		Sec	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp	oil Cracks (Pattern (B: on Water T Burrows (Ci Visible on A or Stressed hic Positio	B6) 10) able (C2) 8) erial Imag Plants (D n (D2)	ery (C9)
/ater Table Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA	Vetland Hydrology Indicationary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerosparsely Vegetated Concord	um of one re	37)		Water-Stained Aquatic Fauna Frue Aquatic F Hydrogen Sulf Dxidized Rhizos Presence of Re Recent Iron Re Thin Muck Sur Gauge or Well	(B13) Plants (B14) Fide Odor (C1) pheres on Living Reduced Iron (C4) eduction in Tilled face (C7)		Sec	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp	oil Cracks (Pattern (B: on Water T Burrows (Ci Visible on A or Stressed hic Positio	B6) 10) able (C2) 8) erial Imag Plants (D n (D2)	ery (C9)
aturation Present? Yes No X Depth (inches): NA	Vetland Hydrology Indicarimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Sparsely Vegetated Conce	um of one re	37) 38)		Water-Stained Aquatic Fauna Frue Aquatic F Hydrogen Sulf Dxidized Rhizos Presence of Re Recent Iron Re Fhin Muck Sur Gauge or Well Other (Explain	I (B13) Plants (B14) Fide Odor (C1) pheres on Living Reduced Iron (C4) eduction in Tilled rface (C7) I Data (D9) I in Remarks)		Sec	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp	oil Cracks (Pattern (B: on Water T Burrows (Ci Visible on A or Stressed hic Positio	B6) 10) able (C2) 8) erial Imag Plants (D n (D2)	ery (C9)
	Vetland Hydrology Indicationary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Sparsely Vegetated Concorded	um of one re 2) rial Imagery (B ave Surface (B	37) 38) No	X [Water-Stained Aquatic Fauna Frue Aquatic F Hydrogen Sulf Dxidized Rhizos Presence of Re Recent Iron Re Thin Muck Sur Gauge or Well Other (Explain	Plants (B14) Plants (B14) Plants (B14) Plants (C1) Pheres on Living Ro educed Iron (C4) eduction in Tilled face (C7) I Data (D9) I in Remarks) Plants (D9) I MA	Soils (C6)		Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp FAC-Neut	oil Cracks (Pattern (B: On Water T Burrows (Ci Visible on A or Stressed hic Position ral Test (Di	B6) 10) able (C2) 8) serial Imag Plants (D n (D2) 5)	ery (C9)

Hydric Soil Present? Yes	rpical for this blogy No blogy No map show X No X No	time of year? significantly naturally pro	Sect Local rel Long: Yes disturbe oblemat ng poir	Station, Town ief (concast X ed? Are iic? (if restricted)	ate: SD ship, Range: ve, convex, none): NW No (if no "Normal Circumstaneeded, explain in F ons, transects, i	Convex Datur (I classification: a, explain in Rer ances" present	narks.) ? Yes eautres, e	DP12	23
VEGETATION – Use scientific names of	nlants								
Tree Stratum (Plot size: 30)	Absolute % Cover	DominantS pecies?	Indicat Status	or	Dominance Test Number of Domi That Are OBL, FA Total Number of	inant Species ACW, or FAC:	2		(A)
		= Total Co	ver		Species Across A Percent of Domi	ll Strata:	2		(B)
Sapling/Shrub Stratum (Plot size: 15)				That Are OBL, FA		100.	0%	(A/B)
1					Prevalence Inde	x Worksheet:			
		= Total Co	ver		Total % Cover of	:	Multiply	by:	
Herb Stratum (Plot size: 5					OBL species	0%	x 1	0.0%	_
Phalaris arundinacea Constitute position to	85%	Y	FACW		FACW species	110%	x 222	20.0%	_
2. Spartina pectinata	25%	<u> </u>	FACW	<u> </u>	FAC species	0%	x 3	0.0%	_
3	4400/				FACU species	0%	x 4	0.0%	_
Was da Visa Christian (District 45	110%	= Total Co	ver		UPL species	0%	x 5	0.0%	_
Woody Vine Stratum (Plot size: 15	_)				Column Totals:	110.0%	(A)2	220%	(B)
1.					Prevalence Inc	dex = B/A =	2.00)	
		= Total Co	ver		Hydrophytic Veg Y 1 - Rapid Tes Y 2 - Dominand Y 3 - Prevalence Y 4 - Morpholo data in Rema N Problematic Indicators of hydric present, unless dist Hydrophytic Vegetation Present?	et for Hydrophy ce Test if >50% ce Index is ≤ 3.0 ogical Adaptatio arks or on a sep Hydrophytic Ve c soil and wetla turbed or probl	tic Vegetat ons (Provid perate shee egetation (I	le suppo et) Explain))
Remarks: PEM									

Profile Description: (Des	cribe to the o	lepth need	ded to docu	ment the in	dicator or co	nfirm the a	bsence of indicator	
Depth M	atrix			Redox Fe	eatures			
(inches) Color:	%		Color:	%	Type:	Loc:	Texture:	Remarks:
0-20 10YR 3,	100	%					Clay Loam	
Type: C=Concentration, I	D=Depletion.	RM=Reduc	ced Matrix.	CS=Covered	or Coated Sai	nd Grains	Location: P	L=Pore Lining, M=Matrix
Hydric Soil Indicators: (A	• • •						Indicators for Problema	
Histosol (A1) Histic Epipedon (A2 Black Histic (A3) Hydrogen Sulfide (A Stratified Layers (A5) 2 cm Muck (A10) X Depleted Below Day Thick Dark Surface (Sandy Mucky Miner	4)) k Surface (A1 A12)	_	Sandy Gl Sandy Re Stripped Loamy M Loamy G Depleted Redox Da Depleted	eyed Matrix	(S4) al (F1) x (F2) F6) ce (F7)		Coast Prairie Redo Dark Surface (S7) Iron-Manganese M Very Shallow Dark Other (Explain in R Indicators of hydrophyt wetland hydrology mus disturbed or problemat	c (A16) lasses (F12) Surface (TF12) emarks) ic vegetation and t be present, unless
Restrictive Layer (if pres Type: None Depth (inches): N Remarks:			-				Hydric Soil Present?	Yes <u>X</u> No
HYDROLOGY Wetland Hydrology Indi	cators							
Primary Indicators (mining Surface Water (A1) High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B3) Iron Deposits (B5) Inundation Visible on A3 Sparsely Vegetated Cor	2) 32) 4) erial Imagery (I	37)	Wate Aquat True A Hydro Oxidiz Prese Recer Thin N	r-Stained Le tic Fauna (B: Aquatic Plan ogen Sulfide ed Rhizosphe nce of Redu	ts (B14) Odor (C1) res on Living Ro ced Iron (C4) ction in Tilled e (C7) ta (D9)		Surface Soi Drainage Po Dry-Season Crayfish Bu Saturation V Stunted or	isible on Aerial Imagery (C9) Stressed Plants (D1) c Position (D2)
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	YesX	No	X Depth Depth	n (inches): n (inches): n (inches):	NA NA 10		Hydrology Present?	Yes <u>X</u> No
Describe Recorded Data Remarks:	ləri caili guag	e, momtor	ing well, ae	riai piiotos,	previous irispe	ecuons), if a	avandbie.	

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC Investigator(s): Paul SWARTZINSKI Landform (hillslope, terrace, etc.): channel Slope (%): <5% Lat: Soil Map Unit Name: Are climatic/hydrologic conditions on the site ty Are Vegetation No , Soil No , or Hydrologic No , Soil No , So	pical for this	time of year?	Sect Local rel Long: Yes disturb	tion, To lief (con X	State: SD wnship, Range: ncave, convex, none N No(if i	Sam Linear Slo Dat WI classification no, explain in Restances" preser	um: <u>NAD</u> n: emarks.)	t: <u>DP12</u>	
SUMMARY OF FINDINGS – Attach site	map show	ing sampli	ng poi	nt loc	ations, transects	, important f	eautres	, etc.	
	No				,	<u>, , , , , , , , , , , , , , , , , , , </u>		•	
	No	X			ampled Area				
	No		V	within a	Wetland?	Yes	No X		
Remarks: UPLAND									
VEGETATION – Use scientific names of	plants								
<u>Tree Stratum</u> (Plot size: <u>30</u>) 1	Absolute % Cover	DominantS pecies?	Indicat Status		Number of Doi That Are OBL, Total Number	minant Species FACW, or FAC:		0	(A)
		= Total Co	ver		Species Across	All Strata:		1	(B)
Sapling/Shrub Stratum (Plot size: 15)				Percent of Don That Are OBL,		(0.0%	(A/B)
1.					Prevalence Inc	lex Worksheet:			
		= Total Co	ver					alı bı	
Herb Stratum (Plot size: 5)					Total % Cover			oly by:	_
1. Bromus inermis	85%	Υ	FACL		OBL species	0%	_ x1 _	0.0%	_
2. Phalaris arundinacea	15%	N.	FACV		FACW species		_ x 2	30.0%	_
3.					FAC species	0%	_ x 3	0.0%	_
J	100%	= Total Co	vor		FACU species	85%	_ x 4	340.0%	_
Manda Vina Street van / Plat sina / 45	100%	= 10tal C0	vei		UPL species	0%	_ x 5	0.0%	_
Woody Vine Stratum (Plot size: 15	_)				Column Totals	100.0%	(A)	370%	(B)
1					Prevalence I	ndex = B/A =	3	.70	
1		= Total Co	ver		Hydrophytic V	egetation Indic	ators:		
					<u>N</u> 1 - Rapid T	est for Hydroph	ytic Vege	tation	
					N 2 - Domina	ince Test if >509	%		
					N 3 - Prevale	nce Index is ≤ 3	.0		
					data in Rei		eperate sh Vegetation and hydro	neet) n (Explain)
					Hydrophytic Vegetation Present?	Yes	_No	<u>x</u>	
Remarks: UPLAND									

Color: % Color: % Type: Loc: Texture: Remarks:	Denth Ma	triv			Podov	Features						
O-20 10YR 3/2 100% Sandy Clay Loam Service C-Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: Pt=Pore Lining, M=Matrix (ydic Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Redox (S5) Coast Prairie Redoc (A16) Histosol (A2) Sandy Redox (S5) Dark Surface (S7) Histosol (A3) Stripped Matrix (S6) Dark Surface (S7) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Very Shallow Dark Surface (F12) Tinch Mark Surface (A10) Depleted Matrix (F2) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Dark Surface (F7) Redox Depressions (F8) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. **Strictive Layer (if present):** Type: None Popth (inches): NA Water-Stained Leaves (89) Surface Water (A1) Aquatic Fauna (813) Surface (B1) Hydrogen Suffide Godor (C1) Salvariaton (B3) True Aquatic Plants (B41) Depth (inches): NA Water Table (A2) Aquatic Fauna (B13) Surface Mater (B1) Presents (B1) Doriange Pattern (B10) Freecent fron Reduction in Tilled Soils (C6) Trinn Nuck Surface (C7) Aquatic Fauna (B43) Agal Mat or Crust (B4) Presence of Reduced fron (C4) Agal Mat or Crust (B4) Indicators (B4) Presence of Reduced fron (C4) Agal Mat or Crust (B4) Free Cent fron Reduction in Tilled Soils (C6) Trinn Deposits (B5) Doriange Pattern (B10) Other (Explain in Remarks) Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X aturation Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No Depth (inches): NA Wetland	(:l)			Color			Loc	Text	ture:	F	Remarks	
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)				Color.				Sandy C	lay Loam			
rdric Soil Indicators (Applicable to all LRRs, unless otherwise noted.) Histosoil (A1)	vno: C-Concontration D	-Donlotion I	DM-Dad	lucad Mat	riv CS-Covoro	ad or Coated Sa	nd Grains		Location	DI - Doro Li	ning M-	Matriy
Histosol (A1)	· · · · · · · · · · · · · · · · · · ·				•		na Grains					Matrix
Histic Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) Iron-Manganese Masses (F12) Black Histic (A3) Stripped Matrix (S6) Iron-Manganese Masses (F12) Very Shallow Dark Surface (F12) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Very Shallow Dark Surface (F12) Thick Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Below Dark Surface (A11) Redox Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. **Setrictive Layer (If present):** Type: None Depth (inches): NA **Bemarks: UPLAND** **POROLOGY** **Vetland Hydrology Indicators** **Imary Indicators (minimum of one required; check all that apply) Surface Water (A1) Surface (A12)		plicable to a	all LRRs,			•				•	ic Soils	
Black Histic (A3)			=			rix (S4)						
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Stratified Layers (A5))	=						_			
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Sandy Mucky Mineral (S1) Redox Depressions (F8) wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if present): Type: None			.1)									
estrictive Layer (if present): Type: None Depth (inches): NA emarks: UPLAND PYDROLOGY Vetland Hydrology Indicators rimary Indicators (minimum of one required; check all that apply) Surface Water (A1) Surface Water (A1) Surface Water (A2) Aquatic Fauna (B13) Drainage Pattern (B10) Surface Soil Cracks (B6) High Water Table (A2) Aquatic Fauna (B13) Drainage Pattern (B10) Sediment Deposits (B1) Drift Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B5) Thin Muck Surface (C7) Iron Deposits (B5) Sparsely Vegetated Concave Surface (B8) Vetland Hydrology Present? Ves No X Depth (inches): NA Wetland Hydrology Present? Ves No X Depth (inches): NA Wetland Hydrology Present? Ves No X Wetland Hydrology Present? Ves No X Depth (inches): NA Wetland Hydrology Present? Ves No X No X No X No Depth (inches): NA No R Wetland Hydrology Present? Ves No X	•	•										
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Iron Deposits (B5)	Vetland Hydrology Indication rimary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	um of one re	equired;	W Ad Tr H	/ater-Stained L quatic Fauna (rue Aquatic Pla ydrogen Sulfid	B13) ants (B14) le Odor (C1)	pots (C3)	Sec	Surface So Drainage Dry-Seaso Crayfish E	oil Cracks (I Pattern (B3 on Water Ta Burrows (C8	B6) 10) able (C2) 3)	
Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Gauge or Well Data (D9) Other (Explain in Remarks) ield Observations: urface Water Present? Yes No X Depth (inches): NA Vater Table Present? Yes No X Depth (inches): NA aturation Present? Yes No X Depth (inches): NA ncludes capillary fringe) Gauge or Well Data (D9) Other (Explain in Remarks) Wetland Hydrology Present? Yes No X Ma Wetland Hydrology Present? Yes No X No X	rimary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	um of one re	equired;	W Tr H	/ater-Stained L quatic Fauna (rue Aquatic Pla ydrogen Sulfid xidized Rhizosph	B13) ants (B14) de Odor (C1) neres on Living Ro	pots (C3)	Sec 	Surface Son Drainage Dry-Seaso Crayfish E Saturation	oil Cracks (I Pattern (Bí on Water Ta Burrows (CE Visible on A	B6) L0) able (C2) 3) erial Imag	ery (C9)
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urface Water Present? Yes No X Depth (inches): NA Vater Table Present? Yes No X Depth (inches): NA aturation Present? Yes No X Depth (inches): NA ncludes capillary fringe) Wetland Hydrology Present? Yes No X NO X	Vetland Hydrology Indications (Minimary Indicators (Minimary Indicators (Minimary Indicators (Minimary Indicators (Mater Table (A2)) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae	um of one re 2) rial Imagery (E	B7)	W Tr Ht 	Vater-Stained L quatic Fauna (rue Aquatic Pla ydrogen Sulfid xidized Rhizosph resence of Rec ecent Iron Red nin Muck Surfa auge or Well E	B13) ants (B14) de Odor (C1) neres on Living Ro duced Iron (C4) duction in Tilled ace (C7) Data (D9)		Sec.	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp	oil Cracks (I Pattern (B: on Water Ti Burrows (CE Visible on A or Stressed hic Position	B6) L0) able (C2) B) erial Imag Plants (D n (D2)	ery (C9)
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aturation Present? Yes No X Depth (inches): NA	Vetland Hydrology Indication rimary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Ae Sparsely Vegetated Conce	um of one re 2) rial Imagery (E ave Surface (E	B7) B8)	WA(Tr	Vater-Stained L quatic Fauna (rue Aquatic Pla ydrogen Sulfid kidized Rhizosph resence of Rec ecent Iron Red nin Muck Surfa auge or Well E ther (Explain in	B13) ants (B14) de Odor (C1) neres on Living Ro duced Iron (C4) duction in Tilled ace (C7) Data (D9) n Remarks)		Sec	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp	oil Cracks (I Pattern (B: on Water Ti Burrows (CE Visible on A or Stressed hic Position	B6) L0) able (C2) B) erial Imag Plants (D n (D2)	ery (C9)
ncludes capillary fringe)	Vetland Hydrology Indication rimary Indicators (minimature Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae Sparsely Vegetated Conconsisted Observations: urface Water Present?	2)) rial Imagery (Eave Surface (E	B7) B8) No	WA(Tr	Vater-Stained Lequatic Fauna (True Aquatic Playdrogen Sulfid Existing the second Face Existing the second Face Existing the second Face Existing the second Face Explain in Explain	B13) ants (B14) de Odor (C1) neres on Living Roduced Iron (C4) duction in Tilled ace (C7) Data (D9) n Remarks)	Soils (C6)		Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp FAC-Neut	oil Cracks (i Pattern (B2 on Water Ta Burrows (C8 Visible on A or Stressed hic Position ral Test (D9	B6) L0) able (C2) B) erial Imag Plants (D n (D2) E)	ery (C9) 1)
estine perioder data isdeam onage monumo wen abital hindis diponor occuprocci it avallanto.	Vetland Hydrology Indication imary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Ae Sparsely Vegetated Conconications: urface Water Present?	um of one re 2) rial Imagery (E ave Surface (E Yes Yes	B7) B8) No No _	X Do	Vater-Stained Lequatic Fauna (True Aquatic Playdrogen Sulfid Axidized Rhizosphresence of Rececent Iron Red Anin Muck Surfa auge or Well E Ather (Explain in Explain in	B13) ants (B14) de Odor (C1) neres on Living Ro duced Iron (C4) duction in Tilled ace (C7) Data (D9) n Remarks) NA NA	Soils (C6)		Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp FAC-Neut	oil Cracks (i Pattern (B2 on Water Ta Burrows (C8 Visible on A or Stressed hic Position ral Test (D9	B6) L0) able (C2) B) erial Imag Plants (D n (D2) E)	ery (C9) 1)

Hydric Soil Present? Yes	pical for this plogy No plogy No map show X No X No	time of year? significantly naturally pro	Section Sectin Section Section Section Section Section Section Section Section	St tion, Towr lief (conca X ned? Are tic? (if	ate: SD nship, Range: nve, convex, none): NW No (if no e "Normal Circumsta needed, explain in F ions, transects, i	Convex Datural classification: , explain in Rerances" present Remarks.)	narks.) ? Yes eautres, e	DP12	25
VEGETATION – Use scientific names of	nlants								
Tree Stratum (Plot size: 30)	Absolute % Cover	DominantS pecies?	Indica Status		Dominance Test Number of Domi That Are OBL, FA Total Number of	nant Species .CW, or FAC:	2		(A)
		= Total Co	ver		Species Across A Percent of Domi	ll Strata:	2		(B)
Sapling/Shrub Stratum (Plot size: 15)				That Are OBL, FA	•	100.	0%	(A/B)
1					Prevalence Inde	x Worksheet:			
		= Total Co	ver		Total % Cover of	:	Multiply	by:	
Herb Stratum (Plot size: 5					OBL species	0%	x 1	0.0%	_
Phalaris arundinacea Constitution and the state of the state	55%	Y	FACV		FACW species	100%	x 22	00.0%	
2. Spartina pectinata	45%	Y	FACV	<u>'V</u>	FAC species	0%	x 3	0.0%	_
3	1000/	Tatal Car			FACU species	0%	x 4	0.0%	_
Woody Vine Stratum (Plot size: 15	100%	= Total Co	ver		UPL species	0%	x 5	0.0%	_
woody vine Stratum (Plot Size: 15	_)				Column Totals:	100.0%	(A)2	200%	(B)
1.					Prevalence Inc	dex = B/A =	2.0	0	_
Remarks: PEM		= Total Co	ver		Hydrophytic Veg Y 1 - Rapid Tes Y 2 - Dominand Y 3 - Prevalence Y 4 - Morpholo data in Rema N Problematic Indicators of hydric present, unless dist Hydrophytic Vegetation Present?	et for Hydrophy ce Test if >50% ce Index is ≤ 3.0 ogical Adaptation orks or on a sep Hydrophytic Vo ce soil and wetla curbed or probl	tic Vegetat ons (Provid erate shee egetation (and hydrolo	le suppo et) Explain)
Remarks: PEM									

Profile Descri	iption: (Descr	ibe to the	depth ne	eded to do	cument the i	ndicator or co	nfirm the a	bsence of indicator	
Depth	Ma	trix			Redox F	eatures			
(inches)	Color:	9	%	Color:	%	Type:	Loc:	Texture:	Remarks:
0-20	10YR 2/1	10	0%					Clay Loam	
Type: C=Conc	entration, D=	Depletion	, RM=Red	uced Matri	x, CS=Covered	d or Coated Sa	nd Grains	Location:	PL=Pore Lining, M=Matrix
Hydric Soil In	dicators: (Ap	olicable to	all LRRs,	unless oth	erwise noted	·.)		Indicators for Problem	natic Hydric Soils
Histosol Histic Ep Black His Hydroge Stratified 2 cm Mu X Depleted Thick Da	(A1) ipedon (A2) stic (A3) n Sulfide (A4) d Layers (A5) ick (A10) d Below Dark rk Surface (A2	Surface (A 1.2)	- - - -	Sandy Sandy Strippe Loamy Loamy Deplet Redox Deplet	Gleyed Matri Redox (S5) ed Matrix (S6) Mucky Mine Gleyed Matr ed Matrix (F3 Dark Surface ed Dark Surface	x (S4)) ral (F1) ix (F2) 8) (F6) ace (F7)		Coast Prairie Redo Dark Surface (S7) Iron-Manganese Very Shallow Dari Other (Explain in	oc (A16) Masses (F12) k Surface (TF12) Remarks)
Sandy M	lucky Mineral	(S1)	=	Redox	Depressions	(F8)		wetland hydrology mu disturbed or problema	
Restrictive La Type: No Depth (in Remarks:	one	nt):		_				Hydric Soil Present?	Yes X No
High Wat X Saturatio Water Mater	rology Indica ators (minimu Vater (A1) er Table (A2) n (A3) arks (B1) : Deposits (B2) osits (B3) : or Crust (B4)	im of one	(B7)	WaTruHyoOxiPreRecThiGan	ter-Stained Lo uatic Fauna (E e Aquatic Pla drogen Sulfide dized Rhizospho sence of Redo	a13) nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9)		Surface So Drainage I Dry-Seaso Crayfish B Saturation	icators (2 or more required) bil Cracks (B6) Pattern (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) r Stressed Plants (D1) nic Position (D2) ral Test (D5)
Field Observa Surface Wate Water Table F Saturation Pro (includes capi Describe Reco	r Present? Present? esent? illary fringe)	Yes	No N	X Dep	oth (inches): oth (inches): oth (inches): aerial photos,	NA NA 8 previous insp		d Hydrology Present? available:	Yes <u>X</u> No
Remarks:									

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC		City/Cour	nty: <u>Deuel</u>		ate: SD		pling Dat pling Poi	-	/2018 26
Investigator(s): Paul SWARTZINSKI			Section	n, Town	ship, Range:		, ,		
Landform (hillslope, terrace, etc.): channel		ı			ve, convex, none): Linear Slo			
Slope (%): <5% Lat:						-	um: NA	D83	
Soil Map Unit Name:						WI classificatio	n:		
Are climatic/hydrologic conditions on the site ty	pical for this	time of year?	Yes	Χ	No (if r	no, explain in R	emarks.)		
Are Vegetation No , Soil No , or Hydr	ology No	significantly	disturbed	? Are	"Normal Circum	stances" preser	nt? Yes	X	No
Are Vegetation <u>No</u> , Soil <u>No</u> , or Hydr	ology No	naturally pro	oblematic?	? (if r	needed, explain ir	n Remarks.)			
SUMMARY OF FINDINGS – Attach site	map show	ing samplii	ng point	locati	ons. transects	. important	feautre	s. etc.	
	No	•	01			, , ,		-,	
		X	ls ti	he Sam	pled Area				
_					/etland?	Yes	No X		
Wetland Hydrology Present? Yes _	No	X							
Remarks: UPLAND									
VEGETATION – Use scientific names of	plants								
	Absolute	DominantS	Indicator		Dominance Te	st Worksheet:			
<u>Tree Stratum</u> (Plot size: <u>30</u>)	% Cover	pecies?	Status			minant Species			
					That Are OBL,	•		0	(A)
1.					Total Number				
		= Total Co	ver		Species Across		<u></u>	1	(B)
Sapling/Shrub Stratum (Plot size: 15)	_			Percent of Don That Are OBL,	•		0.0%	(A/B)
1.									
	-	T-1-1-C		_	Prevalence Inc	dex Worksheet	1		
		= Total Co	ver		Total % Cover	of:	Mult	iply by:	
Herb Stratum (Plot size: 5					OBL species	0%	x 1	0.0%	
1. Bromus inermis	85%	Υ	FACU		FACW species	15%	x 2	30.0%	
2. Phalaris arundinacea	15%	N	FACW	_	FAC species	0%	x 3	0.0%	
3.					FACU species	85%	x 4	340.0%	
	100%	= Total Co	ver		•				_
Woody Vine Stratum (Plot size: 15	1	_			UPL species	0%	_ x 5 _	0.0%	
woody vine stratum (Flot size. 15	_/				Column Totals	100.0%	_ (A) _	370%	(B)
					Prevalence I	ndex = B/A =		3.70	
1	-			-	Headan along the Atla M				
		= Total Co	ver		Hydropnytic V	egetation Indic	ators:		
					<u>N</u> 1 - Rapid T	est for Hydroph	nytic Veg	etation	
					N 2 - Domina	ance Test if >50	%		
					N 3 - Prevale	nce Index is ≤ 3	0		
						ological Adapta		ovide supp	orting
						marks or on a so			,
						ic Hydrophytic	_		-
					Indicators of hyd present, unless d		-		st be
					Hydrophytic Vegetation Present?	Yes	No	x	
Remarks: UPLAND									

Depth Ma (inches) Color:	ITIX			Darley 1	Continue				
	%		Color:	Redox I	Features	Loc	 Texture:	Remarks	s:
0-20 10YR 3/2			COIOT:		Type:	Loc:	Sandy Clay Loam		
pe: C=Concentration, D=	Depletion, I	RM=Red	uced Matri	x, CS=Covere	d or Coated Sa	nd Grains	Location:	PL=Pore Lining, M=	=Matrix
dric Soil Indicators: (Ap	plicable to a	all LRRs,	unless oth	erwise noted	I.)		Indicators for Probler	matic Hydric Soils	
Histosol (A1)		_		Gleyed Matr	ix (S4)		Coast Prairie Red		
Histic Epipedon (A2)		_		Redox (S5)	\		Dark Surface (S7)		
Black Histic (A3) Hydrogen Sulfide (A4)	١	-		ed Matrix (S6 Mucky Mine			Iron-Manganese Very Shallow Dar		
Stratified Layers (A5))			Gleyed Mati			Other (Explain in		
2 cm Muck (A10)		_		ed Matrix (F				,	
Depleted Below Dark	Surface (A1	1)		Dark Surface					
Thick Dark Surface (A	12)	_	Deplet	ed Dark Surf	ace (F7)		Indicators of hydroph	ytic vegetation and	
Sandy Mucky Mineral	(S1)	_	Redox	Depressions	(F8)		wetland hydrology mudisturbed or problema	ust be present, unle	
estrictive Layer (if prese	nt):						·		
Type: None							Hydric Soil Present?	Yes No	Х
Depth (inches): NA			_				yana son rresent:	103140	
emarks:						,			
	itors								
Vetland Hydrology Indica		equired;	check all th	nat apply)				dicators (2 or more	required
Vetland Hydrology Indica rimary Indicators (minimu Surface Water (A1)	um of one re	equired;	Wa	ter-Stained L			Surface S	oil Cracks (B6)	required
Vetland Hydrology Indica rimary Indicators (minimu Surface Water (A1) High Water Table (A2)	um of one re	equired;	Wa	ter-Stained L uatic Fauna (I	B13)		Surface Son Drainage	oil Cracks (B6) Pattern (B10)	
Vetland Hydrology Indica Primary Indicators (minimonal Surface Water (A1) High Water Table (A2) Saturation (A3)	um of one re	equired;	Wa Aqı Tru	ter-Stained L uatic Fauna (I e Aquatic Pla	B13) ints (B14)		Surface So Drainage Dry-Seaso	oil Cracks (B6) Pattern (B10) on Water Table (C2	
Vetland Hydrology Indica Primary Indicators (minimumous Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	um of one re	equired;	Wa Aqı Tru Hyo	ter-Stained L uatic Fauna (I e Aquatic Pla drogen Sulfid	B13) ints (B14) e Odor (C1)	pots (C3)	Surface Some Drainage Dry-Season Crayfish E	oil Cracks (B6) Pattern (B10) on Water Table (C2 Burrows (C8))
Vetland Hydrology Indica Primary Indicators (minimumous Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	um of one re	equired;	Wa Aqı Tru Hyu Oxi	ter-Stained L uatic Fauna (I e Aquatic Pla drogen Sulfid dized Rhizosph	B13) ints (B14)	pots (C3)	Surface Some Drainage Dry-Season Crayfish E	oil Cracks (B6) Pattern (B10) on Water Table (C2) gery (C9)
High Water Table (A2) Saturation (A3) Water Marks (B1)	um of one re	equired;	Wa Aqı Tru Hyo Oxi	ter-Stained L uatic Fauna (I e Aquatic Pla drogen Sulfid dized Rhizosph sence of Red	B13) Ints (B14) e Odor (C1) Ieres on Living Ro		Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of	oil Cracks (B6) Pattern (B10) on Water Table (C2 Burrows (C8) Visible on Aerial Ima) gery (C9)
Vetland Hydrology Indica Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	um of one re	equired;	Wa Tru Hyu Oxi Pre Red	ter-Stained L uatic Fauna (I e Aquatic Pla drogen Sulfid dized Rhizosph sence of Red	B13) Ints (B14) e Odor (C1) Peres on Living Rouced Iron (C4) Suction in Tilled		Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (B6) Pattern (B10) on Water Table (C2 Burrows (C8) Visible on Aerial Ima _l or Stressed Plants (I) gery (C9)
Vetland Hydrology Indication in Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer	um of one re 2) (a) (b) (c) (c) (d)	37)	Wa Tru Hyo Oxi Pre Reo Thi Ga	ter-Stained L uatic Fauna (I e Aquatic Pla drogen Sulfid dized Rhizosph sence of Red cent Iron Red n Muck Surfa uge or Well D	B13) Ints (B14) e Odor (C1) Ieres on Living Roluced Iron (C4) Iuction in Tilled Ice (C7) Iotata (D9)		Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (B6) Pattern (B10) on Water Table (C2 Burrows (C8) Visible on Aerial Imagor Stressed Plants (I hic Position (D2)) gery (C9)
Vetland Hydrology Indica rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	um of one re 2) (a) (b) (c) (c) (d)	37)	Wa Tru Hyo Oxi Pre Reo Thi Ga	ter-Stained L uatic Fauna (I e Aquatic Pla drogen Sulfid dized Rhizosph sence of Red cent Iron Red n Muck Surfa	B13) Ints (B14) e Odor (C1) Ieres on Living Roluced Iron (C4) Iuction in Tilled Ice (C7) Iotata (D9)		Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (B6) Pattern (B10) on Water Table (C2 Burrows (C8) Visible on Aerial Imagor Stressed Plants (I hic Position (D2)) gery (C9)
Vetland Hydrology Indication in Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer	um of one re 2) (a) (b) (c) (c) (d)	37)	Wa Tru Hyo Oxi Pre Reo Thi Ga	ter-Stained L uatic Fauna (I e Aquatic Pla drogen Sulfid dized Rhizosph sence of Red cent Iron Red n Muck Surfa uge or Well D	B13) Ints (B14) e Odor (C1) Ieres on Living Roluced Iron (C4) Iuction in Tilled Ice (C7) Iotata (D9)		Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (B6) Pattern (B10) on Water Table (C2 Burrows (C8) Visible on Aerial Imagor Stressed Plants (I hic Position (D2)) gery (C9)
Vetland Hydrology Indica rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Sparsely Vegetated Conco	um of one re 2) rial Imagery (B ave Surface (B	37) 38)	Ma Aqı Tru Hyı Oxi Pre Rec Thi Gai	ater-Stained L uatic Fauna (I e Aquatic Pla drogen Sulfid dized Rhizosph esence of Red cent Iron Red n Muck Surfa uge or Well D ner (Explain in	B13) Ints (B14) e Odor (C1) Interes on Living Roluced Iron (C4) Interes on Tilled Interes (C7) Interes (D9) In Remarks)		Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (B6) Pattern (B10) on Water Table (C2 Burrows (C8) Visible on Aerial Imagor Stressed Plants (I hic Position (D2)) gery (C9)
Vetland Hydrology Indical rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Sparsely Vegetated Conca	um of one re 2) rial Imagery (E ave Surface (E	37) 38) No	Ma Aqı Tru Hyu Oxi Pre Rec Oth	ter-Stained Luatic Fauna (I de Aquatic Pladrogen Sulfid dized Rhizosph esence of Red cent Iron Red in Muck Surfa uge or Well Di ner (Explain in	B13) Ints (B14) e Odor (C1) Interes on Living Reduced Iron (C4) Interes on Tilled Interes (C7) Interes (D9) In Remarks) NA	Soils (C6)	Surface Some Drainage Dry-Season Crayfish Esturation Stunted of Geomorp FAC-Neut	oil Cracks (B6) Pattern (B10) on Water Table (C2 Burrows (C8) Visible on Aerial Imagor Stressed Plants (I hic Position (D2)) gery (C9)
Vetland Hydrology Indical rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Sparsely Vegetated Conca	um of one re 2) rial Imagery (E ave Surface (E Yes Yes	37) 38) No No	Ma Aqq Tru Hyv Oxi Pre Rec Thi Gar Oth	ater-Stained Lenatic Fauna (Inter-Stained Lenatic Fauna (Inter-Stained Lenatic Pladrogen Sulfid dized Rhizosphesence of Reducent Iron Redun Muck Surfauge or Well Dener (Explain inter-Stained Lenatic Iron Reducent	B13) Ints (B14) e Odor (C1) Interes on Living Roluced Iron (C4) Interes on Living Roluced Iron (C4) Interes on Living Roluced Iron (C7) Interes on Living Roluced Iron (C7) Interes on Living Roluced Iron (C7) Interes on Living Roluced Iron (C4) In	Soils (C6)	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (B6) Pattern (B10) on Water Table (C2 Burrows (C8) Visible on Aerial Imagor Stressed Plants (I hic Position (D2)) gery (C9) D1)
Vetland Hydrology Indical rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Sparsely Vegetated Conca	um of one re 2) rial Imagery (E ave Surface (E Yes Yes Yes	37) 38) No _ No	X De	ater-Stained Legatic Fauna (Inter-Stained Leg	B13) Ints (B14) e Odor (C1) Interes on Living Rouced Iron (C4) Interes on Living Rouced Iron (C4) Interes on Living Rouced Iron (C7) Interes on Living Rouced Iron (C7) Interes on Living Rouced Iron (C7) Interes on Living Rouced Iron (C4) Interes on Living Rouce	Soils (C6)	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted on Geomorp FAC-Neut	oil Cracks (B6) Pattern (B10) on Water Table (C2 Burrows (C8) Visible on Aerial Imagor Stressed Plants (I chic Position (D2) cral Test (D5)) gery (C9) D1)

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC		City/Cour	-	Sta	ate: SD		ling Date: ling Point	-	
Investigator(s): Paul SWARTZINSKI					ship, Range:		,,		
Landform (hillslope, terrace, etc.): channel					ve, convex, none):				
Slope (%): <5% Lat:			Long:				m: NAD8	33	
Soil Map Unit Name:				.,		WI classification			
Are climatic/hydrologic conditions on the site ty						o, explain in Rei	•		
Are Vegetation No , Soil No , or Hydro							? Yes _	Х	No
Are Vegetation No , Soil No , or Hydro					needed, explain in				
SUMMARY OF FINDINGS – Attach site	map show	ing samplii	ng poin	nt location	ons, transects,	important fe	autres,	etc.	
Hydrophytic Vegetation Present? Yes _	X No								
Hydric Soil Present? Yes	X No				pled Area	Vec V N	_		
Wetland Hydrology Present? Yes	X No		W	ithin a W	etland?	Yes X N	υ	_	
Remarks:									
PEM									
VEGETATION – Use scientific names of	plants								
	Absolute	DominantS	Indicate	or	Dominance Tes	t Worksheet:			
<u>Tree Stratum</u> (Plot size: <u>30</u>)	% Cover	pecies?	Status		Number of Don	ninant Species			
					That Are OBL, F	•		2	(A)
1.					Total Number o				
		= Total Co	ver	_	Species Across			2	(B)
Sapling/Shrub Stratum (Plot size: 15	1	_			Percent of Dom				
Sapinig/Siliab Stratum (Flot Size. 15	/				That Are OBL, F	•	100	0.0%	(A/B)
1.					Barrala a sa ta d	>4/ - +			
		= Total Co	·····		Prevalence Inde				
		= 10tal Co	vei		Total % Cover o	f:	Multipl	ly by:	_
Herb Stratum (Plot size: 5)					OBL species	0%	x 1	0.0%	_
Phalaris arundinacea	75%	Υ	FACW	/	FACW species	110%	x 2	220.0%	
2. Spartina pectinata	35%	Υ	FACW		FAC species	0%	x 3	0.0%	
3					FACU species	0%	x 4	0.0%	_
	110%	= Total Co	ver		UPL species	0%	x 5	0.0%	_
Woody Vine Stratum (Plot size: 15)				•				— (D)
	= '				Column Totals:		(A)	220%	(B)
1.					Prevalence Ir	idex = B/A =	2.	00	_
		= Total Co	vor		Hydrophytic Ve	getation Indica	tors:		
	-	= 10tal co	vei		V 1 - Ranid Te	est for Hydrophy	rtic Veget	ation	
						, , ,	ŭ	ation	
						nce Test if >50%			
					Y 3 - Prevaler	nce Index is ≤ 3.0)		
						logical Adaptati			orting
						narks or on a sep c Hydrophytic V			۸
					Indicators of hydri		_		-
					present, unless di			logy mas	, C DC
				-	. ,				
					I landara arbantia				
					Hydrophytic Vegetation				
					Present?	Yes X	No		
Remarks: PEM									

Depth	Mat						eatures					Damad
inches)	Color:	%		Col	or:	%	Type:	Loc:	<u></u>	exture:		Remarks:
0-20	10YR 2/1	100)%						Cl	ay Loam		
ype: C=Conc	centration, D=[Depletion,	RM=Red	duced N	1atrix, CS=C	overed	or Coated Sa	nd Grains		Location:	PL=Pore	Lining, M=Matrix
lydric Soil In	dicators: (App	licable to	all LRRs	, unless	otherwise	noted.)			Indicato	rs for Probler	matic Hy	dric Soils
Black His Hydroge Stratified 2 cm Mu X Depleted Thick Da	pipedon (A2)	2)	1)	Sa St Lo Lo De De	ndy Gleyed indy Redox (ripped Matr iamy Mucky iamy Gleyed epleted Mat edox Dark Su epleted Dark edox Depres	(S5) rix (S6) Minera I Matrix rix (F3) urface (I	el (F1) ((F2) F6) ce (F7)		Dar Iror Ver Oth Indicator wetland	st Prairie Red k Surface (S7) n-Manganese y Shallow Dar er (Explain in rs of hydroph hydrology mid d or problema	Masses (rk Surface Remarks ytic vege ust be pre	(F12) e (TF12) s)
Restrictive La Type: <u>N</u> Depth (in		t):							Hydric S	oil Present?	Yes _	X No
IYDROLOG	ijΥ											
-	Irology Indicat											
Wetland Hyd Primary Indic Surface V High Wat Saturatio Water Mi Sediment Drift Dep Algal Mat Iron Depo	Irology Indicat cators (minimu Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) oosits (B3) t or Crust (B4)	m of one ro	37)	; check	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence c	ned Lea una (B1 tic Plant Sulfide izospher of Reduc n Reduc Surface Well Dat	ts (B14) Odor (C1) res on Living Ro ced Iron (C4) ction in Tilled e (C7) ta (D9)		- - - -	Surface Some Drainage Dry-Seaso Crayfish E	oil Cracks Pattern (on Water Burrows (Visible or or Stresse hic Posit	(B10) Table (C2) (C8) Aerial Imagery (C9) d Plants (D1) ion (D2)
Wetland Hyd Primary Indic Surface V High Wat Saturatio Water Mi Sediment Drift Dep Algal Mat Iron Depo	Irology Indicates ators (minimus Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) n Visible on Aeria (regetated Concar	m of one ro	37)	; check	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence o Recent Iro Thin Muck Gauge or V	ned Lea una (B1 tic Plant Sulfide izospher of Reduc n Reduc Surface Well Dat	ts (B14) Odor (C1) res on Living Ro ced Iron (C4) ction in Tilled e (C7) ta (D9)		- - - -	Surface S Drainage Dry-Sease Crayfish E Saturation Stunted c X Geomorp	oil Cracks Pattern (on Water Burrows (Visible or or Stresse hic Posit	s (B6) (B10) Table (C2) (C8) A Aerial Imagery (C9) ed Plants (D1) ion (D2)
Wetland Hyd Primary Indic Surface V High Wat Saturatio Water Management Drift Dep Algal Mat Iron Depo Inundation Sparsely V	Irology Indicates attors (minimus Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) tor Crust (B4) osits (B5) in Visible on Aeria (egetated Concardations:	m of one ro	37) 38)		Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence o Recent Iro Thin Muck Gauge or V	ned Lea una (B1 tic Plan Sulfide izospher of Reduc n Reduc Surface Well Dat lain in F	ts (B14) Odor (C1) res on Living Ro ced Iron (C4) ction in Tilled e (C7) ta (D9)		- - - -	Surface S Drainage Dry-Sease Crayfish E Saturation Stunted c X Geomorp	oil Cracks Pattern (on Water Burrows (Visible or or Stresse hic Posit	s (B6) (B10) Table (C2) (C8) A Aerial Imagery (C9) ed Plants (D1) ion (D2)
Wetland Hyd Primary Indic Surface V High Wat Saturatio Water M: Sediment Drift Dep Algal Mat Iron Depo Inundatior Sparsely V	Irology Indicates that the state of the stat	m of one ro al Imagery (I ve Surface (I	37) 38) No	x	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence of Recent Iro Thin Muck Gauge or N Other (Exp	ned Lea una (B1 tic Plan Sulfide izospher of Reduc n Reduc Surface Vell Dat lain in F	ts (B14) Odor (C1) res on Living Roced Iron (C4) ction in Tilled e (C7) ta (D9) Remarks)	Soils (C6)	- - - -	Surface S Drainage Dry-Sease Crayfish E Saturation Stunted c X Geomorp	oil Cracks Pattern (on Water Burrows (Visible or or Stresse shic Positi	s (B6) (B10) Table (C2) (C8) A Aerial Imagery (C9) ed Plants (D1) ion (D2)
Wetland Hyd Primary Indic Surface V High Wat Saturatio Water Management Drift Dep Algal Management Iron Depo Inundation Sparsely V	Irology Indicates actors (minimus Vater (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) in Visible on Aeria (egetated Concardations: er Present? Present?	m of one ro al Imagery (I ve Surface (I Yes	37) 38) No No _	X	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence o Recent Iro Thin Muck Gauge or V Other (Exp	ned Lea una (B1 tic Plan Sulfide izospher of Reduc Surface Well Dat lain in F	ts (B14) Odor (C1) res on Living Ro ced Iron (C4) ction in Tilled e (C7) ta (D9) Remarks)	Soils (C6)	- - - -	Surface S Drainage Dry-Seaso Crayfish E Saturation Stunted c X Geomorp X FAC-Neut	oil Cracks Pattern (on Water Burrows (Visible or or Stresse shic Positi	s (B6) (B10) Table (C2) (C8) A Aerial Imagery (C9) ed Plants (D1) ion (D2) (D5)

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC		City/Cour	nty: <u>Deu</u>		nty State: <u>SD</u>		npling Da	-	5/2018 .28
Investigator(s): Paul SWARTZINSKI			Section	on, To	wnship, Range:		,,	-	
Landform (hillslope, terrace, etc.): channel		ı			cave, convex, none	e): Linear Sl			
Slope (%): <5% Lat:						·	tum: NA	D83	
Soil Map Unit Name:						NWI classification	on:		
Are climatic/hydrologic conditions on the site to	pical for this	time of year?	? Yes	Х	No (if	no, explain in F	Remarks.)		
Are Vegetation No , Soil No , or Hydr	ology No	significantly	disturbe	ed? A	re "Normal Circum	nstances" prese	nt? Yes	Χ	No
Are Vegetation No , Soil No , or Hydr	ology No	naturally pro	oblematio	ic? (if needed, explain i	in Remarks.)			
SUMMARY OF FINDINGS – Attach site					tions transacts	s important	feautre	s etc	
	•		iig poiii	11 1000	tions, transcet	s, important	icautic	3, Ctc.	
			le	tha Sa	mpled Area				
Hydric Soil Present? Yes _	No	X			Wetland?	Yes	No X		
Wetland Hydrology Present? Yes	No	X	"		Wettana.				
Remarks: UPLAND									
VEGETATION – Use scientific names of	fplants								
	Absolute	DominantS	Indicato	or	Dominance To	est Worksheet:			
<u>Tree Stratum</u> (Plot size: <u>30</u>)	% Cover	pecies?	Status		Number of Do	minant Species			
						FACW, or FAC:		0	(A)
1.					Total Number				-
		= Total Co	ver		Species Across			1	(B)
Sapling/Shrub Stratum (Plot size: 15)	_			Percent of Do	minant Species FACW, or FAC:		0.0%	(A/B)
1.									
<u> </u>	· 	Tatal Car			Prevalence In	dex Workshee	t:		
		= Total Co	ver		Total % Cover	of:	Mult	tiply by:	
Herb Stratum (Plot size: 5					OBL species	0%	x 1	0.0%	
1. Bromus inermis	85%	Υ	FACU		FACW species	20%	x 2	40.0%	
2. Phalaris arundinacea	20%	N	FACW	<u>'</u>	FAC species	0%	x 3	0.0%	
3.					FACU species	-	x 4	340.0%	
	105%	= Total Co	ver		·				
Woody Vine Stratum (Plot size: 15	1	_			UPL species	0%	x 5	0.0%	_
voody viile stratuiii (Flot size. 15	_/				Column Totals	s: <u>105.0%</u>	(A)	380%	(B)
					Prevalence	Index = B/A =		3.62	
1					I leadar a beatin 1	/t-t			
		= Total Co	ver		Hydrophytic	egetation Indi	cators:		
					N1 - Rapid ⁻	Test for Hydrop	hytic Veg	etation	
					N 2 - Domin	ance Test if >50	0%		
						ence Index is ≤			
					data in Re N Problema	ological Adapta marks or on a s tic Hydrophytic	seperate : Vegetati	sheet) on (Explair	n)
					Indicators of hyd present, unless of		-		st be
					Hydrophytic Vegetation Present?	Yes	No	х	
Remarks: UPLAND									

	+-:-			nI.	Continues						
Depth Mainches) Color:	itrix %		Color		Features	Loc	Text	:ure:	F	Remarks	
0-20 10YR 3/3			Color	. 70	S Type:	<u>Loc:</u>		lay Loam	<u> </u>		<u> </u>
pe: C=Concentration, D=	=Depletion, I	RM=Red	luced Ma	trix, CS=Cover	ed or Coated Sa	nd Grains		Location:	PL=Pore Li	ning, M=	Matrix
dric Soil Indicators: (Ap	plicable to a	all LRRs,	unless o	therwise note	ed.)		Indicators f	or Problen	natic Hydri	ic Soils	
Histosol (A1)		=		dy Gleyed Mat	trix (S4)			Prairie Red			
Histic Epipedon (A2)		-		dy Redox (S5)				urface (S7)		۱۵۱	
Black Histic (A3) Hydrogen Sulfide (A4	١	=		oped Matrix (S my Mucky Mir				_	Masses (F1 k Surface (
Stratified Layers (A5)				ny Gleyed Ma				(Explain in		11 12)	
2 cm Muck (A10)		-		leted Matrix ((=/(p.a	,		
Depleted Below Dark	Surface (A1	1)		ox Dark Surfac							
Thick Dark Surface (A	12)	_	Dep	leted Dark Sui	rface (F7)		Indicators o	of hydrophy	ytic vegeta	tion and	
Sandy Mucky Mineral	(S1)	-	Red	ox Depression	s (F8)		wetland hyd disturbed o	drology mu	ıst be pres		SS
estrictive Layer (if prese	nt):										
Type: None							Hydric Soil	Present?	Yes	No	х
Depth (inches): NA							riyuric 3011	i ieseiil!	163	140	
emarks:						!					
Vetland Hydrology Indica rimary Indicators (minim Surface Water (A1)	um of one re	equired;	\	Water-Stained			Sec	Surface So	dicators (2 o	B6)	required
Vetland Hydrology Indica rimary Indicators (minimo Surface Water (A1) High Water Table (A2)	um of one re	equired;	\	Water-Stained Aquatic Fauna	(B13)		Sec	Surface So Drainage	oil Cracks (I Pattern (Bí	B6) L0)	required
Vetland Hydrology Indica Primary Indicators (minimal Surface Water (A1) High Water Table (A2) Saturation (A3)	um of one re	equired;	\ 1	Nater-Stained Aquatic Fauna True Aquatic P	(B13) lants (B14)		Sec	Surface So Drainage Dry-Seaso	oil Cracks (I Pattern (Bí on Water Ta	B6) L0) able (C2)	required
Vetland Hydrology Indica Primary Indicators (minimal Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	um of one re	equired;	\ 1 H	Nater-Stained Aquatic Fauna True Aquatic P Hydrogen Sulfi	(B13) lants (B14) de Odor (C1)	pots (C3)	Sec 	Surface So Drainage Dry-Seaso Crayfish B	oil Cracks (I Pattern (B3 on Water Ta Burrows (C8	B6) 10) able (C2) 3)	
Vetland Hydrology Indica Primary Indicators (minimal Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	um of one re	equired;	\\ 1 1	Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulfi Oxidized Rhizosp	(B13) lants (B14)	pots (C3)	Sec 	Surface So Drainage Dry-Seaso Crayfish B Saturation	oil Cracks (I Pattern (Bí on Water Ta	B6) L0) able (C2) 3) erial Imag	ery (C9)
Vetland Hydrology Indica Primary Indicators (minimal Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	um of one re	equired;	\ 1 F	Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulfi Dxidized Rhizosp Presence of Re	(B13) lants (B14) de Odor (C1) pheres on Living Ro		Sec ————————————————————————————————————	Surface So Drainage Dry-Seaso Crayfish B Saturation Stunted o	oil Cracks (I Pattern (Bí on Water Ta Burrows (CE Visible on A	B6) 10) able (C2) 3) erial Imag Plants (D	ery (C9)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	um of one re	equired;	\ 	Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulfi Dxidized Rhizosp Presence of Re	(B13) lants (B14) de Odor (C1) pheres on Living Ro educed Iron (C4) duction in Tilled		Sec	Surface So Drainage Dry-Seaso Crayfish B Saturation Stunted o Geomorp	oil Cracks (I Pattern (B2 on Water Ta Burrows (C8 Visible on A r Stressed	B6) L0) able (C2) B) erial Imag Plants (D n (D2)	ery (C9)
Vetland Hydrology Indica Primary Indicators (minimal Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer	um of one re 2) rial Imagery (E	37)	\ 	Nater-Stained Aquatic Fauna True Aquatic P Hydrogen Sulfi Exidized Rhizosp Presence of Re Recent Iron Re	(B13) lants (B14) de Odor (C1) pheres on Living Ro educed Iron (C4) duction in Tilled face (C7)		Sec	Surface So Drainage Dry-Seaso Crayfish B Saturation Stunted o Geomorp	oil Cracks (I Pattern (B: on Water Ti Burrows (CE Visible on A or Stressed hic Position	B6) L0) able (C2) B) erial Imag Plants (D n (D2)	ery (C9)
Vetland Hydrology Indicators (minimal Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	um of one re 2) rial Imagery (E	37)	\ 	Nater-Stained Aquatic Fauna True Aquatic Phydrogen Sulfi Dxidized Rhizosp Presence of Resecent Iron Refinin Muck Sur	(B13) lants (B14) de Odor (C1) pheres on Living Ro educed Iron (C4) duction in Tilled face (C7) Data (D9)		Sec	Surface So Drainage Dry-Seaso Crayfish B Saturation Stunted o Geomorp	oil Cracks (I Pattern (B: on Water Ti Burrows (CE Visible on A or Stressed hic Position	B6) L0) able (C2) B) erial Imag Plants (D n (D2)	ery (C9)
Vetland Hydrology Indica Primary Indicators (minimal Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer	um of one re 2) rial Imagery (E	37)	\ 	Vater-Stained Aquatic Fauna True Aquatic Pelydrogen Sulfi Dxidized Rhizospersence of Regecent Iron ReGauge or Well	(B13) lants (B14) de Odor (C1) pheres on Living Ro educed Iron (C4) duction in Tilled face (C7) Data (D9)		Sec	Surface So Drainage Dry-Seaso Crayfish B Saturation Stunted o Geomorp	oil Cracks (I Pattern (B: on Water Ti Burrows (CE Visible on A or Stressed hic Position	B6) L0) able (C2) B) erial Imag Plants (D n (D2)	ery (C9)
Vetland Hydrology Indication rimary Indicators (miniming Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Aeta Sparsely Vegetated Conconicled Observations:	um of one re 2) rial Imagery (E ave Surface (E	37) 38)		Nater-Stained Aquatic Fauna True Aquatic P Hydrogen Sulfi Dxidized Rhizosp Presence of Recent Iron Refini Muck Surfauge or Well Other (Explain	(B13) lants (B14) de Odor (C1) pheres on Living Roduced Iron (C4) duction in Tilled face (C7) Data (D9) in Remarks)		Sec	Surface So Drainage Dry-Seaso Crayfish B Saturation Stunted o Geomorp	oil Cracks (I Pattern (B: on Water Ti Burrows (CE Visible on A or Stressed hic Position	B6) L0) able (C2) B) erial Imag Plants (D n (D2)	ery (C9)
Vetland Hydrology Indication of the control of the	um of one re 2) rial Imagery (E ave Surface (E	37) 38) No		Vater-Stained Aquatic Fauna True Aquatic P Hydrogen Sulfi Dxidized Rhizosp Presence of Re Recent Iron Re Thin Muck Sur Gauge or Well Other (Explain	(B13) lants (B14) de Odor (C1) pheres on Living Ro educed Iron (C4) duction in Tilled face (C7) Data (D9) in Remarks) : NA	Soils (C6)		Surface So Drainage Dry-Seaso Crayfish B Saturation Stunted o Geomorp FAC-Neut	oil Cracks (I Pattern (B: on Water Ti Burrows (CE Visible on A or Stressed hic Position	B6) L0) able (C2) B) erial Imag Plants (D n (D2)	ery (C9)
Vetland Hydrology Indicator imary Indicators (minimary Indicators (minimary Indicators (Minimary Indicators (Mater Mater Table (A2)) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeron Sparsely Vegetated Conconstited Observations: urface Water Present?	um of one re 2) rial Imagery (E ave Surface (E Yes Yes	37) 38) No No _	X [X]	Nater-Stained Aquatic Fauna True Aquatic P Hydrogen Sulfi Dxidized Rhizosp Presence of Re Recent Iron Re Thin Muck Sur Gauge or Well Other (Explain Depth (inches)	(B13) lants (B14) de Odor (C1) cheres on Living Reduced Iron (C4) duction in Tilled face (C7) Data (D9) in Remarks) : NA : NA	Soils (C6)	Sec ————————————————————————————————————	Surface So Drainage Dry-Seaso Crayfish B Saturation Stunted o Geomorp FAC-Neut	oil Cracks (I Pattern (B: on Water Ti Burrows (CE Visible on A or Stressed hic Position	B6) L0) able (C2) B) erial Imag Plants (D n (D2) E)	ery (C9)
Vetland Hydrology Indication in Indicators (Minimary Indicators (Minimary Indicators (Minimary Indicators (Material Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeronal Indicators (Minimary Indicators (Mi	2) rial Imagery (E ave Surface (E Yes Yes Yes	37) 38) No No	X [X] [X	Nater-Stained Aquatic Fauna True Aquatic P Hydrogen Sulfi Dxidized Rhizosp Presence of Re Recent Iron Re Thin Muck Sur Gauge or Well Dther (Explain Depth (inches) Depth (inches)	(B13) lants (B14) de Odor (C1) cheres on Living Ro educed Iron (C4) duction in Tilled face (C7) Data (D9) in Remarks) : NA : NA : NA	Soils (C6)	d Hydrology F	Surface So Drainage Dry-Seaso Crayfish B Saturation Stunted o Geomorp FAC-Neut	oil Cracks (i Pattern (B2 on Water Ta Burrows (C8 Visible on A or Stressed hic Position ral Test (D9	B6) L0) able (C2) B) erial Imag Plants (D n (D2) E)	ery (C9) 1)

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC Investigator(s): Paul SWARTZINSKI Landform (hillslope, terrace, etc.): channel Slope (%): <5% Lat: Soil Map Unit Name:	union four abio		Secti Local reli Long:	Sta ion, Town ief (conca	ate: <u>SD</u> Iship, Range: _ ve, convex, none	Sampl : <u>Convex</u> Datur WI classification:	m: NAD83	10/7/2018 DP131	
Are climatic/hydrologic conditions on the site ty						no, explain in Rer	•	V Na	
Are Vegetation No , Soil No , or Hydr							? Yes	X No _	
Are Vegetation No , Soil No , or Hydr					needed, explain ir				
SUMMARY OF FINDINGS – Attach site			ng poir	nt locati	ons, transects	, important fe	autres, et	ic.	
Hydrophytic Vegetation Present? Yes	X No								
Hydric Soil Present? Yes	X No				pled Area	Vos V N	•		
Wetland Hydrology Present? Yes	X No		W	vithin a W	/etland?	Yes X N	,		
Remarks: PEM									
VEGETATION – Use scientific names of	plants								
<u>Tree Stratum</u> (Plot size: <u>30</u>) 1.	Absolute % Cover	DominantS pecies?	Indicat Status	or	Number of Dor That Are OBL, I	minant Species FACW, or FAC:	1	(A)	
		= Total Co			Total Number of Species Across		1	(B)	
Sapling/Shrub Stratum (Plot size: 15)	= Total Co	ver		Percent of Don That Are OBL, I	ninant Species	100.0		
1.					Duning law on Inc	lass NA/a wheels a anti-			
	-	= Total Co	vor			lex Worksheet:			
Hards Christians (Blatisians 5	-	= 10tal co	vei		Total % Cover	of:	Multiply b	by:	
Herb Stratum (Plot size: 5)					OBL species	0%	x 10.	.0%	
Spartina pectinata Superina pectinata	85%	Y	FACW		FACW species	85%	x 2170	0.0%	
2. Bromus inermis	15%	N	FACU	<u> </u>	FAC species	0%	x 30.	.0%	
3	·				FACU species	15%	x 4 60	0.0%	
	100%	= Total Co	ver		UPL species	0%	x 5 0.	.0%	
Woody Vine Stratum (Plot size: 15	_)				Column Totals:	100.0%	(A) 23	30% (B)	
					Prevalence I	ndex = B/A =	2.30		
1					Trevalence i	-			
		= Total Co	ver		Hydrophytic V	egetation Indica	tors:		
					<u>Y</u> 1 - Rapid T	est for Hydrophy	tic Vegetatio	on	
					Y 2 - Domina	nce Test if >50%			
					Y 3 - Prevale	nce Index is ≤ 3.0)		
					Y 4 - Morpho	ological Adaptation marks or on a sep ic Hydrophytic Ve	ons (Provide perate sheet egetation (Ex	:) xplain)	
					present, unless d				
					Hydrophytic Vegetation Present?	Yes <u>X</u>	.No	_	
Remarks: PEM									

Profile Description: (De	scribe to the d	lepth needed	to document the i	ndicator or cor	nfirm the al	bsence of indicator	<u> </u>
Depth I	∕latrix		Redox F	eatures			
(inches) Colo	: %	Co	olor: %	Type:	Loc:	Texture:	Remarks:
0-8 10YR 2	2/1 100	%				Clay Loam	
8-20 10YR 2	•		R 4/6 5%			Clay Loam	
			70 370				
Type: C=Concentration,	D=Depletion, I	RM=Reduced	Matrix, CS=Covere	d or Coated Sar	nd Grains	Location:	PL=Pore Lining, M=Matrix
Hydric Soil Indicators:	· ·		<u> </u>			Indicators for Problem	-
Histosol (A1)			andy Gleyed Matri			Coast Prairie Red	•
Histic Epipedon (A	2)		andy Redox (S5)	λ (3 1)		Dark Surface (S7)	00 (7.120)
Black Histic (A3)	,		tripped Matrix (S6)		Iron-Manganese	Masses (F12)
Hydrogen Sulfide (44)		oamy Mucky Mine			Very Shallow Dar	
Stratified Layers (A	5)	L	oamy Gleyed Matr	ix (F2)		Other (Explain in	Remarks)
2 cm Muck (A10)			Pepleted Matrix (F3	3)			
X Depleted Below Da	rk Surface (A1	1)R	ledox Dark Surface	(F6)			
Thick Dark Surface	(A12)		epleted Dark Surfa	ace (F7)		Indicators of hydrophy	rtic vegetation and
Sandy Mucky Mine	ral (S1)	R	Redox Depressions	(F8)		wetland hydrology mu	_
						disturbed or problema	tic.
Restrictive Layer (if pre	sent):						
Type: None						Hydric Soil Present?	Yes X No
Depth (inches):	NA .						····
Remarks:							
HYDROLOGY							
Wetland Hydrology Inc	icators						
Primary Indicators (min	mum of one re	equired; check	all that apply)			Secondary Ind	icators (2 or more required)
Surface Water (A1)		_	Water-Stained L				oil Cracks (B6)
High Water Table ((2)		Aquatic Fauna (E	•		_	Pattern (B10)
Saturation (A3)		_	True Aquatic Pla				n Water Table (C2)
Water Marks (B1)	(0.0)	_	Hydrogen Sulfide	. ,	-+- (C2)		urrows (C8)
Sediment Deposits	(B2)	_	Oxidized Rhizosph		ots (C3)		Visible on Aerial Imagery (C9)
Drift Deposits (B3)	D.4.)	_	Presence of Red Recent Iron Red	` '	Soils (CE)		r Stressed Plants (D1)
Algal Mat or Crust (Iron Deposits (B5)	D4)	_	Thin Muck Surfa		Solis (Co)	X FAC-Neuti	nic Position (D2)
X Inundation Visible on	Aerial Imagery (B		Gauge or Well D			X IAC-Neuti	al lest (D3)
Sparsely Vegetated Co		•	Other (Explain in				
	(-		Other (Explain ii	ricinario			
Field Observations:							
Surface Water Present?	Yes	No X	Depth (inches):	NA			
Water Table Present?	Yes	No X	Depth (inches):	NA	Wetland	l Hydrology Present?	Yes X No
Saturation Present?	Yes	No X	Depth (inches):	NA			
(includes capillary fring							
Describe Recorded Data	(stream guage	e, monitoring	well, aerial photos	, previous inspe	ections), if a	available:	
Remarks: PEM							

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC Investigator(s): Paul SWARTZINSKI		City/Cour		S	ty tate: <u>SD</u> nship, Range:	Samp	oling Dar	te: <u>10/7,</u> nt: <u>DP1</u>	
Landform (hillslope, terrace, etc.): channel		I			ave, convex, none				
Slope (%): <5% Lat:						·	ım: NA	D83	
Soil Map Unit Name:						IWI classification	:		
Are climatic/hydrologic conditions on the site t						no, explain in Re			
Are Vegetation No , Soil No , or Hydr							t? Yes	X	No
Are Vegetation No , Soil No , or Hydr					needed, explain ii				
SUMMARY OF FINDINGS – Attach site	map show	ing sampli	ng poin	t locat	ions, transects	, important f	eautre	s, etc.	
Hydrophytic Vegetation Present? Yes	No	X							
Hydric Soil Present? Yes	No	X			npled Area	Yes N	lo X		
Wetland Hydrology Present? Yes	No	X	W	itnin a v	Wetland?	1631			
Remarks: UPLAND									
VEGETATION – Use scientific names o	•								
<u>Tree Stratum</u> (Plot size: 30)	Absolute % Cover	DominantS pecies?	Indicato Status	or	Dominance Te	st Worksheet:			
,	70 COVEI	pecies:	Status			minant Species		•	(4)
1						FACW, or FAC:		0	(A)
1.	· 	Tatal Car			Total Number Species Across			1	(B)
		= Total Co	ver		-	ninant Species			(=)
Sapling/Shrub Stratum (Plot size: 15)					FACW, or FAC:		0.0%	(A/B)
1.					Prevalence Inc	dex Worksheet:			
		= Total Co	ver		Total % Cover	of:	Mult	iply by:	
Herb Stratum (Plot size: 5)					OBL species	0%	x 1	0.0%	_
1. Bromus inermis	80%	Υ	FACU		FACW species		x 2	30.0%	
2. Spartina pectinata	15%	N	FACW		FAC species	0%	x 3	0.0%	
3.							-		_
	95%	= Total Co	ver		FACU species		x 4	320.0%	
Woody Vine Stratum (Plot size: 15	1				UPL species	0%	x 5	0.0%	
woody vine stratam (110t 312c. 15	_'				Column Totals	95.0%	(A)	350%	(B)
1.					Prevalence	Index = B/A =		3.68	
	-				Hydrophytic V	egetation Indica	tors:		
		= Total Co	ver			-			
						est for Hydroph	, ,	etation	
						ance Test if >50%			
					N 3 - Prevale	ence Index is ≤ 3.	0		
					data in Re N Problemat	ological Adaptat marks or on a se iic Hydrophytic V	perate : egetati	sheet) on (Explair	n)
					Indicators of hyd present, unless d				st be
					Hydrophytic Vegetation Present?	Yes	_No	х	
Remarks: UPLAND									

Profile Description: (Desc	ribe to the	depth n	eeded t	o document the i	indicator or co	nfirm the a	bsence of indicator		
Depth Ma	ntrix			Redox F	eatures				
(inches) Color:	9	6	Cold	or: %	Type:	Loc:	Texture:	R	emarks:
0-20 10YR 3/1	. 10	0%					Clay Loam		
Type: C=Concentration, D	=Depletion,	, RM=Red	duced M	latrix, CS=Covere	d or Coated Sa	nd Grains	Location	PL=Pore Lir	ning, M=Matrix
Hydric Soil Indicators: (Ap							Indicators for Proble		
Histosol (A1)	pileable to	a 2		ndy Gleyed Matri			Coast Prairie Red	•	C 50.115
Histic Epipedon (A2)				ndy Redox (S5)	IX (34)		Dark Surface (S7	. ,	
Black Histic (A3)				ripped Matrix (S6)		Iron-Manganese		.2)
Hydrogen Sulfide (A4	.)			amy Mucky Mine			Very Shallow Da		
Stratified Layers (A5)	,			amy Gleyed Matr			Other (Explain in		•
2 cm Muck (A10)				pleted Matrix (F3			` .	,	
Depleted Below Dark	Surface (A	11)	Re	dox Dark Surface	(F6)				
Thick Dark Surface (A	.12)		De	epleted Dark Surfa	ace (F7)		Indicators of hydroph	vtic vegetat	tion and
Sandy Mucky Minera	l (S1)		Re	edox Depressions	(F8)		wetland hydrology m disturbed or problem	ust be prese	
Restrictive Layer (if prese	nt):								
Type: None	- 						Hydric Soil Brosont?	Voc	No V
Depth (inches): NA							Hydric Soil Present?	Yes	NoX
Remarks: UPLAND						Į.			
HYDROLOGY									
Wetland Hydrology Indica	ators								
Primary Indicators (minim	um of one	required	; check a	all that apply)			Secondary In	dicators (2 d	or more required
Surface Water (A1)				Water-Stained L	eaves (B9)		Surface S	oil Cracks (E	36)
High Water Table (A2)	ı			Aquatic Fauna (E	313)		Drainage	Pattern (B1	.0)
Saturation (A3)				_True Aquatic Pla	nts (B14)		Dry-Seas	on Water Ta	able (C2)
Water Marks (B1)				_Hydrogen Sulfid	, ,			Burrows (C8	•
Sediment Deposits (B2	<u>'</u>)			Oxidized Rhizosph		oots (C3)			erial Imagery (C9)
Drift Deposits (B3)	,			_Presence of Red	` '	o !! (oo)		or Stressed	. ,
Algal Mat or Crust (B4)		_	_Recent Iron Red		Soils (C6)		hic Position	
Iron Deposits (B5) Inundation Visible on Ae	rial Imagony	/P7\		_Thin Muck Surfa	` '		FAC-Neu	tral Test (D5	o)
Sparsely Vegetated Conc	• ,			Gauge or Well D Other (Explain in					
		()		_Other (Explain ii	r nemarks,				
Field Observations:									
Surface Water Present?	Yes	No	Χ	Depth (inches):	NA				
Water Table Present?	Yes	No	X	Depth (inches):	NA	Wetland	d Hydrology Present?	Yes	No X
Saturation Present?	Yes	No	Χ	Depth (inches):	NA				
(includes capillary fringe)									
Describe Recorded Data (s	tream gua	ge, moni	toring w	vell, aerial photos	, previous insp	ections), if	available:		
Remarks:									

Project/Site: Tatanka Ridge Wind Project		City/Cour	nty: <u>De</u> i	uel Count	у		ling Date:	-	/2018
Applicant/Owner: Buffalo Ridge III, LLC					ate: SD	Samp	ling Point	:: <u>DP13</u>	33
Investigator(s): Paul SWARTZINSKI					nship, Range:		,,		
Landform (hillslope, terrace, etc.): channel					ave, convex, none				
Slope (%): <5% Lat:			Long:			Datu	m: NAD8	33	
Soil Map Unit Name:						WI classification:	-		
Are climatic/hydrologic conditions on the site ty			_			no, explain in Rer			
Are Vegetation No , Soil No , or Hydro							? Yes	X	No
Are Vegetation No , Soil No , or Hydr					needed, explain ir				
SUMMARY OF FINDINGS – Attach site	map show	ing sampli	ng poii	nt locat	ions, transects	, important fe	autres,	etc.	
Hydrophytic Vegetation Present? Yes _	X No								
Hydric Soil Present? Yes	X No				pled Area	Vac V N	_		
Wetland Hydrology Present? Yes	X No		٧	within a V	Vetland?	Yes X N		_	
Remarks:									
PEM									
VEGETATION – Use scientific names of	plants				- 1				
Trac Stratura (Blat size, 20	Absolute	DominantS			Dominance Te	st Worksheet:			
<u>Tree Stratum</u> (Plot size: <u>30</u>)	% Cover	pecies?	Status		Number of Do	minant Species			
					That Are OBL,	•		3	(A)
1					Total Number	of Dominant			
		= Total Co	ver		Species Across	All Strata:		3	(B)
Sapling/Shrub Stratum (Plot size: 15	1	_			Percent of Don	ninant Species			
<u> </u>					That Are OBL,	FACW, or FAC:	100	0.0%	(A/B)
1									
1					Prevalence Inc	dex Worksheet:			
		= Total Co	ver		Total % Cover	of:	Multip	ly by:	
Herb Stratum (Plot size: 5					OBL species	40%	x 1	40.0%	
1. Spartina pectinata	35%	Υ	FACV	V	FACW species	70%	x 2	140.0%	
2. Phalaris arundinacea	35%	Υ	FACV	V	FAC species	0%	x 3	0.0%	_
3. Schoenoplectus acutus	25%	Υ	OBL	<u>- </u>	·				
4. Carex aquatilis	15%	N	OBL	-	FACU species	0%	x 4	0.0%	_
5.					UPL species	0%	x 5	0.0%	_
	110%	= Total Co	vor		Column Totals	110.0%	(A)	180%	(B)
	110/0	_ = 10tal Co	vei		Prevalence I	ndex = B/A =	1.	.64	
Woody Vine Stratum (Plot size: 15)				He advante atta		A = = .		<u> </u>
1.						egetation Indica			
		= Total Co	vor			est for Hydrophy	ŭ	ation	
	-	= 10tal Co	vei		Y 2 - Domina	ance Test if >50%			
					Y 3 - Prevale	nce Index is ≤ 3.0)		
						ological Adaptati			orting
						marks or on a ser			,
						ic Hydrophytic V	-		
					Indicators of hyd present, unless d			logy mus	st be
					present, unless u	isturbed or probl	Ciliatic		
							_		
					Hydrophytic				
					Vegetation	Yes X	No		
					Present?	.co <u> x</u>			
Remarks: PEM					1				
INCHIAINS. FLIVI									

Profile Desc	ription: (Desc	ribe to the	depth ne	eded to docum	nent the ind	icator or co	nfirm the a	bsence of indicator	
Depth	Ma	trix			Redox Fea	ntures			
(inches)	Color:	9	6	Color:	%	Type:	Loc:	Texture:	Remarks:
0-4	10YR 2/1	. 10	0%					Clay Loam	
4-20	10YR 2/1	. 75	5%	10YR 4/6	25%			Clay Loam	
	•			· ·			-		
Type: C=Cor	ncentration, D	Depletion,	RM=Red	uced Matrix, CS	S=Covered o	r Coated Sar	nd Grains	Location	: PL=Pore Lining, M=Matrix
Hydric Soil I	ndicators: (Ap	plicable to	all LRRs,	unless otherw	ise noted.)			Indicators for Proble	matic Hydric Soils
Histoso	ol (A1)		_	Sandy Gley	yed Matrix (S4)		Coast Prairie Re	doc (A16)
Histic E	pipedon (A2)		_	Sandy Red	ox (S5)			Dark Surface (S	7)
	listic (A3)		=	Stripped N				Iron-Manganes	
	gen Sulfide (A4)	-		icky Mineral				ark Surface (TF12)
	ed Layers (A5)			-	yed Matrix ((F2)		Other (Explain i	n Remarks)
	luck (A10)		-	Depleted N		6)			
l — ·	ed Below Dark	-	11) _		k Surface (F	,			
	Park Surface (A	•	=	•	Dark Surface	,		Indicators of hydrop	-
sandy i	Mucky Minera	(21)	-	кеаох рер	ressions (F8))			nust be present, unless
								disturbed or problen	iduc.
Restrictive I	Layer (if prese	nt):							
Type: _f	None							Hydric Soil Present?	Yes X No
Depth (i	inches): NA							Try ario Son Tresenti	.es <u></u>
Remarks:							-		
HYDROLO(GY								
	drology Indica	itors							
Primary Indi	icators (minim	um of one	required;	check all that a	ipply)			Secondary Ir	ndicators (2 or more required)
X Surface	Water (A1)			Water-	Stained Leav	ves (B9)		Surface	Soil Cracks (B6)
X High Wa	ater Table (A2)			Aquatio	: Fauna (B13	3)		 Drainage	e Pattern (B10)
X Saturati	on (A3)			True Ad	quatic Plants	s (B14)		Dry-Seas	son Water Table (C2)
Water N	∕larks (B1)				en Sulfide O				Burrows (C8)
Sedimer	nt Deposits (B	2)				s on Living Ro	ots (C3)		n Visible on Aerial Imagery (C9)
l 	posits (B3)				ce of Reduce	, ,			or Stressed Plants (D1)
	at or Crust (B4)				ion in Tilled	Soils (C6)		phic Position (D2)
	oosits (B5)		(DZ)		uck Surface			X FAC-Neu	itral Test (D5)
	on Visible on Ae Vegetated Conc	• .		_	or Well Data				
Sparsely	vegetated Conc	ave surrace	(00)	Other (Explain in Re	emarks)			
Field Observ	vations:								
Surface Wat		Yes X	No _	Depth ((inches):	3			
Water Table	Present?	Yes X	No _	Depth ((inches):	0	Wetland	l Hydrology Present?	Yes X No
Saturation P		Yes X	No _	Depth ((inches):	0		. 0,	
	pillary fringe)		•		1 1 .			9.11	
Describe Re	corded Data (s	tream gua	ge, monit	oring well, aeria	al photos, pr	revious inspe	ections), if a	available:	
Remarks:									

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC Investigator(s): Paul SWARTZINSKI		City/Cour		Sta	rte: SD ship, Range:		ling Dat ling Poi		/2018 34
Landform (hillslope, terrace, etc.): channel					ve, convex, none				
Slope (%): <5% Lat:						•	m: NAI	D83	
Soil Map Unit Name:						IWI classification	:		
Are climatic/hydrologic conditions on the site ty						no, explain in Re	-		
Are Vegetation No , Soil No , or Hydro							? Yes	X	No
Are Vegetation No , Soil No , or Hydr	ology No	naturally pr	oblematio	c? (if r	needed, explain ir	n Remarks.)			
SUMMARY OF FINDINGS – Attach site	map show	ing sampli	ng point	t locati	ons, transects	, important fo	eautre	s, etc.	
Hydrophytic Vegetation Present? Yes	X No								
Hydric Soil Present? Yes	No	X			pled Area	Voc N	. v		
Wetland Hydrology Present? Yes	No	Χ	wi	ithin a W	etland?	YesN	0 <u>x</u>		
Remarks:									
UPLAND									
VEGETATION – Use scientific names of	plants								
Trans Street (Diet sine. 20	Absolute	DominantS		or	Dominance Te	st Worksheet:			
<u>Tree Stratum</u> (Plot size: <u>30</u>)	% Cover	pecies?	Status		Number of Doi	minant Species			
					That Are OBL,	•		1	(A)
1	-				Total Number	of Dominant			
		= Total Co	ver		Species Across	All Strata:			(B)
Sapling/Shrub Stratum (Plot size: 15)				Percent of Don	•	1	00.00/	(A /D)
					That Are OBL,	FACW, or FAC:	1	00.0%	(A/B)
1.				-	Prevalence Inc	dex Worksheet:			
	-	= Total Co	ver				N 4 l ±	ما ا منا	
Herb Stratum (Plot size: 5)			• • • • • • • • • • • • • • • • • • • •		Total % Cover		-	iply by:	_
	FF0/	.,	FA.C		OBL species	0%	x 1	0.0%	
Andropogon gerardii Sosphastrum putans	55% 15%	Y	FAC		FACW species	0%	x 2	0.0%	_
Sorghastrum nutans Bromus inermis	15% 15%	N	FACU FACU		FAC species	55%	x 3	165.0%	
4. Bouteloua curtipendula	5%	N	UPL		FACU species	30%	x 4	120.0%	
			- 01 L		UPL species	5%	x 5	25.0%	
5					Column Totals	90.0%	(A)	310%	(B)
	90%	_ = Total Co	ver			ndex = B/A =	_	3.44	(-)
Woody Vine Stratum (Plot size: 15)				Frevalence	illuex = b/A =		3.44	
					Hydrophytic V	egetation Indica	tors:		
1					N 1 - Rapid T	est for Hydrophy	rtic Vege	etation	
		= Total Co	ver			ance Test if >50%	Ŭ		
						nce Index is ≤ 3.			
						ological Adaptati	-		orting
						marks or on a se ic Hydrophytic V			1)
					Indicators of hyd		-		-
					present, unless d	isturbed or prob	lematic		
					Hydrophytic				
					Vegetation				
					Present?	Yes X	No		
Remarks: UPLAND									

Depth (inches) Color: 20 10YR 3/2 Type: C=Concentration, D=D	%		Redox Features			
20 10YR 3/2		Color:	% Type:	Loc:	 Texture:	Remarks:
·	100%	COIOI.		<u> </u>	Clay Loam	
pe: C=Concentration, D=D	20075					
	epletion, RM=R	educed Matrix,	CS=Covered or Coated S	Sand Grains	Location: PL:	=Pore Lining, M=Matrix
ydric Soil Indicators: (App	licable to all LRF	Rs, unless othe	rwise noted.)		Indicators for Problemat	tic Hydric Soils
Histosol (A1)			ileyed Matrix (S4)		Coast Prairie Redoc	(A16)
Histic Epipedon (A2)			edox (S5)		Dark Surface (S7)	(=,=)
Black Histic (A3)			d Matrix (S6)		Iron-Manganese Ma	
Hydrogen Sulfide (A4) Stratified Layers (A5)		-	Mucky Mineral (F1) Gleyed Matrix (F2)		Very Shallow Dark S Other (Explain in Re	
2 cm Muck (A10)			d Matrix (F3)		Other (Explain in Re	iliai k5)
Depleted Below Dark S	urface (A11)		Park Surface (F6)			
Thick Dark Surface (A12			d Dark Surface (F7)		Indicators of hydrophytic	vegetation and
Sandy Mucky Mineral (S1)		Depressions (F8)		wetland hydrology must	be present, unless
- And Advantage 197	<u> </u>				disturbed or problematic	··
estrictive Layer (if present Type: NONE	j:					
Depth (inches): NA		<u> </u>			Hydric Soil Present?	Yes No X
emarks:						
YDROLOGY						
Vetland Hydrology Indicatorimary Indicators (minimur Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)		Wate Aqua True Hydr	er-Stained Leaves (B9) atic Fauna (B13) Aquatic Plants (B14) ogen Sulfide Odor (C1)	Roots (C3)	Surface Soil Drainage Pat Dry-Season V Crayfish Bur	ttern (B10) Water Table (C2) rows (C8)
Vetland Hydrology Indicatorimary Indicators (minimur Surface Water (A1) High Water Table (A2) Saturation (A3)		—Wato Aqua True Hydr Oxidi	er-Stained Leaves (B9) atic Fauna (B13) Aquatic Plants (B14)		Surface Soil of Drainage Pate Dry-Season Note Crayfish Burn Saturation Vis	Cracks (B6) ttern (B10) Water Table (C2)
Vetland Hydrology Indicator Timary Indicators (minimur Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)		Wato Aqua True Hydr Oxidi Pres	er-Stained Leaves (B9) atic Fauna (B13) Aquatic Plants (B14) rogen Sulfide Odor (C1) zed Rhizospheres on Living	1)	Surface Soil of Drainage Pate Dry-Season Note Crayfish Burice Saturation Vise Stunted or S	Cracks (B6) ttern (B10) Water Table (C2) rows (C8) ible on Aerial Imagery (C9)
Vetland Hydrology Indicate rimary Indicators (minimur Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	n of one require	— Wate Aqua True Hydr Oxidi — Prese Rece	er-Stained Leaves (B9) atic Fauna (B13) Aquatic Plants (B14) togen Sulfide Odor (C1) zed Rhizospheres on Living ence of Reduced Iron (C4	1)	Surface Soil of Drainage Pate Dry-Season Note Crayfish Burice Saturation Vise Stunted or S	Cracks (B6) ttern (B10) Water Table (C2) rows (C8) ible on Aerial Imagery (C9) tressed Plants (D1) Position (D2)
Vetland Hydrology Indicator rimary Indicators (minimur Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	n of one require	Wate AquaTrueHydr OxidiPreseReceThin Gauge	er-Stained Leaves (B9) Patic Fauna (B13) Aquatic Plants (B14) Rogen Sulfide Odor (C1) Rogen Sulfide Odor (C1) Rogen Sence of Reduced Iron (C4) Rogent Iron Reduction in Tille	1)	Surface Soil of Drainage Pate Dry-Season Note Crayfish Burner Saturation Vis Stunted or S Geomorphic	Cracks (B6) ttern (B10) Water Table (C2) rows (C8) ible on Aerial Imagery (C9) tressed Plants (D1) Position (D2)
Vetland Hydrology Indicator rimary Indicators (minimur Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeria Sparsely Vegetated Concav	n of one require	Wate AquaTrueHydr OxidiPreseReceThin Gauge	er-Stained Leaves (B9) Actic Fauna (B13) Aquatic Plants (B14) rogen Sulfide Odor (C1) zed Rhizospheres on Living ence of Reduced Iron (C4 ent Iron Reduction in Tille Muck Surface (C7) ge or Well Data (D9)	1)	Surface Soil of Drainage Pate Dry-Season Note Crayfish Burner Saturation Vis Stunted or S Geomorphic	Cracks (B6) ttern (B10) Water Table (C2) rows (C8) ible on Aerial Imagery (C9) tressed Plants (D1) Position (D2)
Vetland Hydrology Indicator rimary Indicators (minimur Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeria	n of one require al Imagery (B7) re Surface (B8)	— Wate Aqua Aqua True Hydr Oxidi Presi Rece Thin Gaug	er-Stained Leaves (B9) atic Fauna (B13) Aquatic Plants (B14) rogen Sulfide Odor (C1) zed Rhizospheres on Living ence of Reduced Iron (C4 ent Iron Reduction in Tille Muck Surface (C7) ge or Well Data (D9) er (Explain in Remarks)	1)	Surface Soil of Drainage Pate Dry-Season Note Crayfish Burner Saturation Vis Stunted or S Geomorphic	Cracks (B6) ttern (B10) Water Table (C2) rows (C8) ible on Aerial Imagery (C9) tressed Plants (D1) Position (D2)
Vetland Hydrology Indicator rimary Indicators (minimur Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeria Sparsely Vegetated Concav	n of one require Il Imagery (B7) Yes No	— Wate Aqua Aqua True Hydr Oxidi Pres. Rece Thin Gaug	er-Stained Leaves (B9) atic Fauna (B13) Aquatic Plants (B14) rogen Sulfide Odor (C1) zed Rhizospheres on Living ence of Reduced Iron (C4 ent Iron Reduction in Tille Muck Surface (C7) ge or Well Data (D9) er (Explain in Remarks)	1) ed Soils (C6)	Surface Soil of Drainage Pate Dry-Season Note Crayfish Burit Saturation Vis Stunted or S Geomorphic FAC-Neutral	Cracks (B6) ttern (B10) Water Table (C2) rows (C8) ible on Aerial Imagery (C9) tressed Plants (D1) Position (D2) Test (D5)
rimary Indicators (minimur Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeria Sparsely Vegetated Concav	n of one require Il Imagery (B7) re Surface (B8) Yes No Yes No	— Wate Aqua Aqua True Hydr Oxidi — Press Rece Thin Gaug Other Other The Manner of X Dept	er-Stained Leaves (B9) atic Fauna (B13) Aquatic Plants (B14) rogen Sulfide Odor (C1) zed Rhizospheres on Living ence of Reduced Iron (C4 ent Iron Reduction in Tille Muck Surface (C7) ge or Well Data (D9) er (Explain in Remarks) th (inches): NA	1) ed Soils (C6)	Surface Soil of Drainage Pate Dry-Season Notes Crayfish Burit Saturation Vist Stunted or Stunted or Stunted FAC-Neutral	Cracks (B6) ttern (B10) Water Table (C2) rows (C8) ible on Aerial Imagery (C9) tressed Plants (D1) Position (D2)
retland Hydrology Indicatorimary Indicators (minimur Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeria Sparsely Vegetated Concaver	n of one require Il Imagery (B7) Yes No Yes No Yes No	Wate Aqua True Hydr Oxidi Prese Rece Thin Gaug Othe X Dept X Dept	er-Stained Leaves (B9) atic Fauna (B13) Aquatic Plants (B14) rogen Sulfide Odor (C1) zed Rhizospheres on Living ence of Reduced Iron (C4 ant Iron Reduction in Tille Muck Surface (C7) ge or Well Data (D9) er (Explain in Remarks) th (inches): NA th (inches): NA	1) ed Soils (C6) Wetland	Surface Soil of Drainage Pate Dry-Season Note That Patents of Stunted or Surface Soil of Stunted S	Cracks (B6) ttern (B10) Water Table (C2) rows (C8) ible on Aerial Imagery (C9) tressed Plants (D1) Position (D2) Test (D5)

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC Investigator(s): Paul SWARTZINSKI		City/Cour		S	ty State: <u>SD</u> Snship, Range:		ing Date: ing Point:	10/7/2018 DP135
Landform (hillslope, terrace, etc.): channel Slope (%): <5% Lat:			Local rel	lief (conc	cave, convex, none	-	m: NAD83	
Soil Map Unit Name:						IWI classification:		
Are climatic/hydrologic conditions on the site ty	nical for this	time of year?	2 Vas	Y		no, explain in Rer		
Are Vegetation No , Soil No , or Hydr			_				•	X No
Are Vegetation No , Soil No , or Hydr					f needed, explain ir		. 163	<u> </u>
SUMMARY OF FINDINGS – Attach site	-		ng poii	nt locat	tions, transects	, important fe	autres, e	tc.
Hydrophytic Vegetation Present? Yes _	X No							
Hydric Soil Present? Yes	X No				mpled Area	V V N	_	
Wetland Hydrology Present? Yes	X No		V	within a	Wetland?	Yes X N	o	
Remarks: PEM								
VEGETATION – Use scientific names of	plants							
<u>Tree Stratum</u> (Plot size: <u>30</u>)	Absolute % Cover	DominantS pecies?	Indicat Status		Number of Do	est Worksheet: minant Species	1	(0)
1					That Are OBL, Total Number		1	(A)
		_ = Total Co	ver		Species Across		1	(B)
Sapling/Shrub Stratum (Plot size: 15)				Percent of Dor That Are OBL,	•	100.0	0% (A/B)
1					Prevalence Inc	dex Worksheet:		
		= Total Co	ver		Total % Cover	of:	Multiply l	by:
Herb Stratum (Plot size: 5)					OBL species	0%	x 1 0	0.0%
Phalaris arundinacea	85%	Υ	FACV	V	FACW species	105%	x 2 21	.0.0%
2. Spartina pectinata	20%	N	FACV	V	· ·		-	
3.					FAC species	0%	-	0.0%
J	105%	= Total Co	·····		FACU species	0%	x 4 0	0.0%
	105%	= 10tal Co	vei		UPL species	0%	x 5 0	0.0%
Woody Vine Stratum (Plot size: 15	_)				Column Totals	: 105.0%	(A)2:	10% (B)
1.					Prevalence I	ndex = B/A =	2.00	l
		= Total Co	ver		Hydrophytic V	egetation Indica	tors:	
					Y 1 - Rapid T	est for Hydrophy	tic Vegetati	on
					Y 2 - Domina	ance Test if >50%		
						nce Index is ≤ 3.0		
								cupporting
					data in Rei	ological Adaptatio marks or on a sep ic Hydrophytic Ve	erate sheet	t)
					Indicators of hyd present, unless d			gy must be
					Hydrophytic Vegetation Present?	Yes X	No	_
Remarks: PEM								

Profile Description: (Des	cribe to the	depth need	ded to docu	ment the i	ndicator or co	nfirm the a	bsence of indicator	
·	latrix			Redox F	eatures			
(inches) Color	9	6	Color:	%	Type:	Loc:	Texture:	Remarks:
0-20 10YR 2	/1 10	0%					Clay Loam	
Type: C=Concentration,	D=Depletion,	RM=Reduc	ed Matrix,	CS=Covered	d or Coated Sa	nd Grains	Location:	PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (A	Applicable to	all LRRs, ur	nless other	wise noted	.)		Indicators for Problen	natic Hydric Soils
Histosol (A1) Histic Epipedon (A2 Black Histic (A3) Hydrogen Sulfide (A Stratified Layers (A! 2 cm Muck (A10) X Depleted Below Da Thick Dark Surface (Sandy Mucky Minel) .4) 5) rk Surface (A A12)	——————————————————————————————————————	Sandy Gl Sandy Re Stripped Loamy M Loamy G Depleted Redox Da Depleted	eyed Matrix	ral (F1) ix (F2)) (F6) ce (F7)		Coast Prairie Red Dark Surface (S7) Iron-Manganese Very Shallow Dar Other (Explain in	oc (A16) Masses (F12) k Surface (TF12) Remarks) rtic vegetation and
	` '			,	. ,		disturbed or problema	
Restrictive Layer (if pres Type: None Depth (inches): N Remarks: PEM							Hydric Soil Present?	Yes <u>X</u> No
HYDROLOGY Wetland Hydrology Indi Primary Indicators (mini Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (Drift Deposits (B3) Algal Mat or Crust (E Iron Deposits (B5) X Inundation Visible on A Sparsely Vegetated Con	mum of one 2) 32) 4) erial Imagery	(B7)	Wate Aquat True A Hydro Oxidiz Prese Recer Thin I	r-Stained Le tic Fauna (B Aquatic Plan ogen Sulfide ed Rhizosphe nce of Redu	ot13) Ints (B14) Ints		Surface So Drainage Dry-Seaso Crayfish B Saturation Stunted o	icators (2 or more required) pil Cracks (B6) Pattern (B10) n Water Table (C2) urrows (C8) Visible on Aerial Imagery (C9) r Stressed Plants (D1) nic Position (D2) ral Test (D5)
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe Describe Recorded Data	Yes Yes	No X No X	C Depth	n (inches): n (inches): n (inches):	NA NA NA nrevious insp		d Hydrology Present?	Yes <u>X</u> No
Remarks:	tou cam gua	50, 11101111011		p.10.03,	p. cvious iiisp		arandore.	

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC		City/Cour	nty: <u>Deue</u>		tate: SD		npling Da	-	7/2018 136
Investigator(s): Paul SWARTZINSKI			Sectio	n, Tow	nship, Range:		,,		
Landform (hillslope, terrace, etc.): channel		l	Local relie	f (conc	ave, convex, none	e): Linear Sl	оре		
Slope (%): <5% Lat:			Long:			Da	tum: NA	D83	
Soil Map Unit Name:						NWI classification	on:		
Are climatic/hydrologic conditions on the site ty	pical for this	time of year?	? Yes	Χ	No(if	no, explain in F	Remarks.)		
Are Vegetation No , Soil No , or Hydr	ology No	significantly	disturbed	d? Ar	e "Normal Circum	nstances" prese	nt? Yes	X	No
Are Vegetation No , Soil No , or Hydr	ology No	naturally pro	oblematic	:? (if	needed, explain i	n Remarks.)			
SUMMARY OF FINDINGS – Attach site	map show	ing samplii	ng noint	locat	ions, transects	s. important	feautre	s. etc.	
	No	•			,	,p		,	
			ls t	the Sar	npled Area				
		X			Wetland?	Yes	No X		
Wetland Hydrology Present? Yes _	No	X							
Remarks: UPLAND									
VEGETATION – Use scientific names of	plants								
	Absolute	DominantS	Indicator	r	Dominance Te	est Worksheet:			
<u>Tree Stratum</u> (Plot size: <u>30</u>)	% Cover	pecies?	Status		Number of Do	minant Species	:		
						FACW, or FAC:		0	(A)
1					Total Number				-
		= Total Co	ver		Species Across			1	(B)
Sapling/Shrub Stratum (Plot size: 15)					minant Species FACW, or FAC:		0.0%	(A/B)
1.									
		T-1-1-C		_	Prevalence In	dex Workshee	t:		
		= Total Co	ver		Total % Cover	of:	Mult	iply by:	
Herb Stratum (Plot size: 5					OBL species	0%	x 1	0.0%	
1. Bromus inermis	85%	Υ	FACU		FACW species	15%	x 2	30.0%	
2. Phalaris arundinacea	15%	N	FACW	_	FAC species	0%	x 3	0.0%	
3.					•	-			
	100%	= Total Cov	ver	_	FACU species		x 4	340.0%	
Woody Vino Stratum (Diet size, 15	10070		• • •		UPL species	0%	x 5	0.0%	
Woody Vine Stratum (Plot size: 15	_)				Column Totals	100.0%	(A)	370%	(B)
					Prevalence	Index = B/A =		3.70	
1.				_					
		= Total Co	ver		Hydrophytic \	egetation Indi	cators:		
					N 1 - Rapid	Test for Hydrop	hytic Veg	etation	
					N 2 - Domin	ance Test if >50	0%		
						ence Index is ≤			
					data in Re	ological Adapta marks or on a s tic Hydrophytic	seperate : Vegetati	sheet) on (Explaii	n)
					present, unless of		-		Je DC
					Hydrophytic Vegetation Present?	Yes	No	x	
Remarks: UPLAND									

Popt													
O-20 10YR 3/1 100% Clay Loarn Location: PL=Pore Lining, M=Malarix Malarix	(:l)									vturo:		Romarko	
### Company of the co				Colo	<u>r:</u> _	%	Iype	Loc:	<u> </u>			NCIII ai Ka	·•
ydric Soil Indicators (Applicable to all LRRs, unless otherwise noted.) Histoca (A1)	0-20 10YR 3/1	. 100)%						Cla	y Loam			
Histosol (A1) Sandy Gleyed Matrix (\$4) Coast Prairie Redoc (A15) Histic Epipedon (A2) Sandy Redox (\$5) Dark Surface (\$7) Histic Epipedon (A2) Stripped Matrix (\$6) Joark Surface (\$7) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Very Shallow Dark Surface (\$712) Thick Dark Surface (A12) Depleted Matrix (F2) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (\$1) Redox Depressions (\$78) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. **Strictive Layer (if present):** Type: None Depth (inches): NA **marks:** **PROLOGY** **etland Hydrology Indicators** **imary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Leaves (\$89) Agratic Part (\$1) Water-Stained Leaves (\$89) Surface Water (A1) Aquatic Plants (\$18.4) Depth (\$10 Aquatic Plants (\$18.4) Dry-Season Water Table (\$2) Saturation (A3) True Aquatic Plants (\$18.4) Dry-Season Water Table (\$2) Drift Deposits (\$3) Presence of Reduced Iron (\$4) Sutrator Visible on Aerial Imagery (\$7) Sediment Deposits (\$81) Drift Deposits (\$81) Drift Deposits (\$81) Thin Muck Surface (\$71) Sparsely Vegetated Concave Surface (\$88) Other (Explain in Remarks) **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA *	pe: C=Concentration, D:	=Depletion,	RM=Rec	duced Ma	atrix, CS=Co	overed	or Coated S	Sand Grains		Location:	PL=Pore L	ining, M=	Matrix
Histic Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) Black Histic (A3) Stripped Matrix (S6) Incom Manganese Masses (F12) Hydrogen Sulfidie (A4) Loamy Mucky Mineral (F1) Very Shallow Dark Surface (TF12) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Redox Depressions (F8) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. **Strictive Layer (If present):** Type: Non Depth (inches): NA	ydric Soil Indicators: (Ap	plicable to	all LRRs,	, unless o	otherwise	noted.))		Indicators	for Proble	matic Hydr	ic Soils	
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Redox Depressions (F8) Redox Deposits (F8) Redox Deposi	Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4 Stratified Layers (A5) 2 cm Muck (A10)			San Stri Loa Loa Deg	dy Redox (pped Matr my Mucky my Gleyed bleted Mat	(S5) fix (S6) Minera I Matrix rix (F3)	al (F1) < (F2)		Dark Iron- Very	Surface (S7 Manganese Shallow Da) Masses (F rk Surface (
Type: None Depth (inches): NA PROLOGY Petland Hydrology Indicators rimary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Mater Table (A2) Mater Marks (B1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Drift Deposits (B2) Drift Deposits (B2) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B3) Sparsely Vegetated Concave Surface (B8) Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA	Thick Dark Surface (A	12)		Dep	oleted Dark	c Surfac	ce (F7)		wetland h	ydrology m	ust be pres		
Popeth (inches): NA emarks: Mydric Soil Present? Yes No X		nt):											
POROLOGY Valed Va				_					Hydric Soi	l Present?	Yes	No	X
Vetland Hydrology Indicators rimary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Drainage Pattern (B10) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Iron Deposits (B5) Sparsely Vegetated Concave Surface (B8) Vater Marks (B8) Dreinage Pattern (B10) Algal Observations: Urface Water Present? Ves No X Depth (inches): Vater Table (A2) Secondary Indicators (2 or more required) Secondary Indicators (2 or more required) Secondary Indicators (2 or more required) Surface Soil Cracks (B6) Drainage Pattern (B10) Saturation Visible on Aerial Imagery (C9) Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) Vater Table Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X No X Depth (inches): NA No Recont Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) FAC-Neutral Test (D5) No X Wetland Hydrology Present? Yes No X No X Depth (inches): NA No Recont Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) FAC-Neutral Test (D5) No X Wetland Hydrology Present? Yes No X No X Depth (inches): NA No No No No No No No No No													
Surface Water (A1)	(DBOLOGY												
High Water Table (A2) Saturation (A3) Aquatic Fauna (B13) True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: urface Water Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Stunted or Stunte		itors											
Saturation (A3)	etland Hydrology Indica		equired;	; check a	Il that appl	y)			Se	econdary Inc	dicators (2	or more	required
Water Marks (B1)	Tetland Hydrology Indication imary Indicators (minim Surface Water (A1)	um of one r	equired;				aves (B9)		Se	Surface S	oil Cracks (B6)	required
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Pethon Inches): Inface Water Present? Yes No X Depth (inches): Inturation Present? Yes No X Depth (inches): Inturation Present? Yes No X Depth (inches): NA	etland Hydrology Indica imary Indicators (minim Surface Water (A1) High Water Table (A2)	um of one r	equired;		Water-Stai Aquatic Fa	ned Le una (B1	13)		Se	Surface S Drainage	oil Cracks (Pattern (B	B6) 10)	
Drift Deposits (B3)	Yetland Hydrology Indica rimary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3)	um of one r	equired;		Water-Stai Aquatic Fa True Aqua	ned Le una (B1 tic Plan	13) ts (B14)		Se	Surface S Drainage Dry-Seaso	oil Cracks (Pattern (B on Water T	B6) 10) able (C2)	
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Peld Observations: Irrace Water Present? Yes No X Depth (inches): NA Vater Table Present? Yes No X Depth (inches): NA Includes capillary fringe) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) FAC-Neutral Test (D5) FAC-Neutral Test (D	Vetland Hydrology Indication of the Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	um of one r	equired;		Water-Stai Aquatic Fa True Aqua Hydrogen	ined Le una (B1 tic Plan Sulfide	13) ts (B14) Odor (C1)	Roots (C3)	Se	Surface S Drainage Dry-Sease Crayfish I	oil Cracks (Pattern (B on Water T Burrows (C	B6) 10) able (C2) 8)	
Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Peld Observations: Ourface Water Present? Yes No X Depth (inches): NA Vater Table Present? Yes No X Depth (inches): NA Output (Explain in Remarks) Wetland Hydrology Present? Yes No X Depth (inches): NA Maturation Present? Yes No X Depth (inches): NA Includes capillary fringe)	Vetland Hydrology Indica rimary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2	um of one r	equired;		Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized Rh	ined Le una (B1 tic Plan Sulfide izosphei	13) ts (B14) Odor (C1) res on Living		Se	Surface S Drainage Dry-Sease Crayfish I Saturation	oil Cracks (Pattern (B on Water T Burrows (C Visible on A	B6) 10) able (C2) 8) Aerial Imag	gery (C9)
urface Water Present? Yes No X Depth (inches): NA /ater Table Present? Yes No X Depth (inches): NA aturation Present? Yes No X Depth (inches): NA ncludes capillary fringe) NO X Depth (inches): NA NO X Depth (inches): NA	Vetland Hydrology Indicarimary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	um of one ro	equired;		Water-Stai Aquatic Fa True Aqua Hydrogen : Oxidized Rh Presence c	ned Leauna (B1 tic Plan Sulfide izospher	13) ts (B14) Odor (C1) res on Living ced Iron (C4	1)	Se	Surface S Drainage Dry-Sease Crayfish I Saturation Stunted c	oil Cracks (Pattern (B on Water T Burrows (C Visible on A or Stressed	B6) 10) able (C2) 8) Aerial Imag Plants (E	gery (C9)
urface Water Present? Yes No X Depth (inches): NA /ater Table Present? Yes No X Depth (inches): NA aturation Present? Yes No X Depth (inches): NA ncludes capillary fringe) No X Depth (inches): NA No X Depth (inches): NA	Vetland Hydrology Indicarimary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Ae	um of one ro	B7)		Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence c Recent Iro Thin Muck Gauge or V	ined Lea una (B1 tic Plan Sulfide izosphei of Redu n Redu Surface Vell Da	ts (B14) Odor (C1) res on Living ced Iron (C4 ction in Tille e (C7) ta (D9)	1)	Se	Surface S Drainage Dry-Sease Crayfish I Saturation Stunted of	oil Cracks (Pattern (B on Water T Burrows (C Visible on A or Stressed whic Positio	B6) 10) Table (C2) 8) Aerial Imag Plants (E n (D2)	gery (C9)
Vater Table Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA holudes capillary fringe)	Vetland Hydrology Indicationary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Ae	um of one ro	B7)		Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence c Recent Iro Thin Muck Gauge or V	ined Lea una (B1 tic Plan Sulfide izosphei of Redu n Redu Surface Vell Da	ts (B14) Odor (C1) res on Living ced Iron (C4 ction in Tille e (C7) ta (D9)	1)	Se	Surface S Drainage Dry-Sease Crayfish I Saturation Stunted of	oil Cracks (Pattern (B on Water T Burrows (C Visible on A or Stressed whic Positio	B6) 10) Table (C2) 8) Aerial Imag Plants (E n (D2)	gery (C9)
nturation Present? Yes No X Depth (inches): NA	retland Hydrology Indicationary Indicators (minimary Indicators (minimary Indicators (minimary Indicators) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Aeron Sparsely Vegetated Concord	um of one ro	B7) B8)		Water-Stai Aquatic Fa True Aquat Hydrogen Oxidized Rh Presence c Recent Iron Thin Muck Gauge or V Other (Exp	ned Le. una (B1 tic Plan Sulfide izosphei of Redu n Redu Surfaco Well Da lain in	ts (B14) Odor (C1) res on Living ced Iron (C4 ction in Tille e (C7) ta (D9) Remarks)	1)	Se	Surface S Drainage Dry-Sease Crayfish I Saturation Stunted of	oil Cracks (Pattern (B on Water T Burrows (C Visible on A or Stressed whic Positio	B6) 10) Table (C2) 8) Aerial Imag Plants (E n (D2)	gery (C9)
ncludes capillary fringe)	Vetland Hydrology Indicationary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Aerosparsely Vegetated Conconded	um of one ro 2) rial Imagery (I ave Surface (I	B7) B8)	X	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence c Recent Iron Thin Muck Gauge or V Other (Exp	ned Lea una (B1 tic Plan Sulfide izospher of Redu n Redu Surface Vell Da llain in I	ts (B14) Odor (C1) res on Living ced Iron (C4 ction in Tille e (C7) ta (D9) Remarks)	1)	Se	Surface S Drainage Dry-Sease Crayfish I Saturation Stunted of	oil Cracks (Pattern (B on Water T Burrows (C Visible on A or Stressed whic Positio	B6) 10) Table (C2) 8) Aerial Imag Plants (E n (D2)	gery (C9)
	rimary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Aer Sparsely Vegetated Conce	um of one ro	B7) B8) No No _		Water-Stai Aquatic Fa True Aquat Hydrogen Oxidized Rh Presence c Recent Iron Thin Muck Gauge or V Other (Exp	ned Le. una (B1 tic Plan Sulfide izosphei of Redu n Redu Surface Well Da ilain in l hes):	ts (B14) Odor (C1) res on Living ced Iron (C4 ction in Tille e (C7) ta (D9) Remarks)	a) ed Soils (C6)	-	Surface S Drainage Dry-Sease Crayfish I Saturation Stunted of Geomorp FAC-Neur	oil Cracks (Pattern (B pon Water T Burrows (C Visible on A por Stressed whic Positio tral Test (D	B6) 10) fable (C2) 8) Nerial Imag Plants (E n (D2) 5)	gery (C9) 01)

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC Investigator(s): Paul SWARTZINSKI Landform (hillslope, terrace, etc.): channel Slope (%): <5% Lat: Soil Map Unit Name: Are climatic/hydrologic conditions on the site ty Are Vegetation No , Soil No , or Hydromatic Are Vegetation No , Soil No , or Hydromatic Are Vegetation No , Soil No , or Hydromatic Are Vegetation No , Soil No , or Hydromatic Are Vegetation Present? Yes Hydrophytic Vegetation Present? Yes	ology No ology No map show X No	time of year? significantly naturally pro	Sectocal re Long: Yes disturb oblema	St tion, Town elief (conca X ped? Ard tic? (if	nship, Range: ave, convex, none) No (if n e "Normal Circums needed, explain in ions, transects,	Sampl : Convex Datur WI classification: no, explain in Renstances" present	m: NAD83 narks.) ? Yes		
Wetland Hydrology Present? Yes	X No		'	within a V	Vetland?	162 <u>v</u> M	,		
Remarks: PEM VEGETATION – Use scientific names of									
Tree Stratum (Plot size: 30)	Absolute % Cover	DominantS pecies?	Indica Status		Number of Don That Are OBL, F	minant Species FACW, or FAC:	1	(A	4)
		= Total Co	ver		Species Across		1	(E	3)
Sapling/Shrub Stratum (Plot size: 15)	_			Percent of Dom That Are OBL, F	ninant Species	100.09	<u>%</u> (<i>F</i>	4/B)
1.					Prevalence Ind	ex Worksheet			
		= Total Co	ver				ما براجنصار با		
Herb Stratum (Plot size: 5)	-				Total % Cover o		Multiply b		ē.
	000/	V	FAC)	.,	OBL species	0%	x 10.	.0%	
Phalaris arundinacea Spartina pectinata	80% 15%	Y N	FAC\ FAC\		FACW species	95%	x 2190	0.0%	<u>.</u>
Spartina pectinata Bromus inermis	10%	N	FACI		FAC species	0%	x 30.	.0%	=
					FACU species	10%	x 440	0.0%	-
4					UPL species	0%	x 50.	.0%	=
	105%	= Total Co	ver		Column Totals:	105.0%	(A) 23	30%	(B)
Woody Vine Stratum (Plot size: 15	_)				Prevalence Ir		2.19		
1.					Hydrophytic Ve	egetation Indica	tors:		<u>:</u>
		= Total Co	ver		Y 1 - Rapid Te	est for Hydrophy	tic Vegetatio	on	
					Y 2 - Domina	nce Test if >50%			
					Y 3 - Prevaler	nce Index is ≤ 3.0)		
					data in Ren		erate sheet egetation (Ex nd hydrolog	:) xplain)	
					Hydrophytic Vegetation Present?	Yes <u>X</u>	.No	_	
Remarks: PEM					1				

Depth	Mati				Redox Fe	eatures			Day I
(inches)	Color:			Color:	%	Type:	Loc:	Texture:	Remarks:
0-6	10YR 2/1	1009	%					Clay Loam	
6-20	10YR 2/1	90%	<u> </u>	10YR 4/6	10%	С	M	Clay Loam	
	entration, D=D	anlation D		used Matrix (nd Crains		PL=Pore Lining, M=Matrix
•							nu Grains		
-	dicators: (App	licable to a	II LRRs,					Indicators for Proble	-
Histosol			-		eyed Matrix	(54)		Coast Prairie Red	
Black His	ipedon (A2)		-	Sandy Re				Dark Surface (\$7	•
	n Sulfide (A4)		-		Matrix (S6) ucky Miner	al /E1\		Iron-Manganese	rk Surface (TF12)
	d Layers (A5)		-		eyed Matri			Other (Explain ir	
2 cm Mu				-	Matrix (F3)			Other (Explain ii	i Nemarks)
	d Below Dark S	urface (Δ11	-)		rk Surface (
	rk Surface (A12	-	-/ -		Dark Surface	•		Indicators of builty 1	urtin vogotetien er d
	ucky Mineral (-	-		pressions (Indicators of hydroph	ytic vegetation and ust be present, unless
	and the second	1	=		.p. 20010113 (1	-,		disturbed or problem	
Restrictive La	yer (if present	:):							
Type: No	one							Hydric Soil Present?	Yes X No
Depth (in	ches): NA							nyunc son Fresent:	162 <u>V</u> 140
Remarks: P	EM								
YDROLOG	Y	ors							
YDROLOG Wetland Hyd			quired;	check all that	apply)			Secondary In	dicators (2 or more required
YDROLOG Wetland Hyd	Y rology Indicat ators (minimur		quired;		apply) -Stained Le	aves (B9)		•	dicators (2 or more required oil Cracks (B6)
I YDROLOG Wetland Hyd Primary Indica Surface W	Y rology Indicat ators (minimur		quired;	Water				Surface S	· · · · · · · · · · · · · · · · · · ·
I YDROLOG Wetland Hyd Primary Indica Surface W	Y rology Indicate ators (minimun Vater (A1) er Table (A2)		quired;	Water Aquat	-Stained Le	13)		Surface S Drainage	oil Cracks (B6)
IYDROLOG Wetland Hyd Primary Indica Surface W High Wat	Y rology Indicate ators (minimun Vater (A1) er Table (A2) n (A3)		quired;	Water Aquat True A	-Stained Le ic Fauna (Ba Aquatic Plan gen Sulfide	13) its (B14) Odor (C1)		Surface S Drainage Dry-Seas Crayfish	oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8)
Netland Hyd Primary Indica Surface W High Wat Saturation Water Ma Sediment	Y rology Indicate ators (minimur Vater (A1) er Table (A2) n (A3) arks (B1) : Deposits (B2)		quired;	Water Aquat True A Hydro Oxidize	Stained Le ic Fauna (B: Aquatic Plan gen Sulfide ed Rhizosphe	13) its (B14) Odor (C1) res on Living Ro	pots (C3)	Surface S Drainage Dry-Seas Crayfish Saturation	ooil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9)
Netland Hyd Primary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo	Y rology Indicate ators (minimus Vater (A1) er Table (A2) n (A3) arks (B1) : Deposits (B2) osits (B3)		quired;	Water Aquat True A Hydro Oxidize	-Stained Le ic Fauna (B: Aquatic Plan gen Sulfide ed Rhizosphe nce of Redu	13) its (B14) Odor (C1) res on Living Ro ced Iron (C4)		Surface S Drainage Dry-Seas Crayfish Saturation Stunted	oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Primary Indication Surface Wigh Water Magners Sediment Drift Depo	Y rology Indicate ators (minimur Vater (A1) er Table (A2) n (A3) arks (B1) Deposits (B2) osits (B3) or Crust (B4)		quired;	Water Aquat True A Hydro Oxidize Presei	r-Stained Le ic Fauna (B: Aquatic Plan gen Sulfide ed Rhizosphe nce of Redu t Iron Redu	13) ots (B14) Odor (C1) res on Living Roced Iron (C4) ction in Tilled		Surface S Drainage Dry-Seas Crayfish Saturation Stunted X Geomory	oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1) whic Position (D2)
Primary Indication Surface Wigh Water MacSediment Drift Depo	rology Indicate ators (minimum Vater (A1) er Table (A2) in (A3) erks (B1) is Deposits (B2) cosits (B3) or Crust (B4) osits (B5)	n of one re		Water Aquat True A Hydro Oxidize Preser Recen Thin N	r-Stained Le ic Fauna (B: Aquatic Plan gen Sulfide ed Rhizosphe nce of Redu t Iron Redu Muck Surfac	13) ots (B14) Odor (C1) res on Living Roced Iron (C4) ction in Tilled e (C7)		Surface S Drainage Dry-Seas Crayfish Saturation Stunted X Geomory	oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Primary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo X Inundation	Y rology Indicate ators (minimur Vater (A1) er Table (A2) n (A3) arks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) n Visible on Aeria	n of one re	7)	Water Aquat True A Hydro Oxidize Presen Recen Thin N Gauge	r-Stained Le ic Fauna (B: Aquatic Plan gen Sulfide ed Rhizosphe nce of Redu t Iron Redu Muck Surfac e or Well Da	13) ots (B14) Odor (C1) res on Living Roced Iron (C4) ction in Tilled e (C7) ta (D9)		Surface S Drainage Dry-Seas Crayfish Saturation Stunted X Geomory	oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2)
Primary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo X Inundation	rology Indicate ators (minimum Vater (A1) er Table (A2) in (A3) erks (B1) is Deposits (B2) cosits (B3) or Crust (B4) osits (B5)	n of one re	7)	Water Aquat True A Hydro Oxidize Presen Recen Thin N Gauge	r-Stained Le ic Fauna (B: Aquatic Plan gen Sulfide ed Rhizosphe nce of Redu t Iron Redu Muck Surfac	13) ots (B14) Odor (C1) res on Living Roced Iron (C4) ction in Tilled e (C7) ta (D9)		Surface S Drainage Dry-Seas Crayfish Saturation Stunted X Geomory	oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2)
Primary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo X Inundation Sparsely Vo	Y rology Indicate ators (minimum Vater (A1) er Table (A2) n (A3) arks (B1) Deposits (B2) osits (B3) Or Crust (B4) osits (B5) n Visible on Aeria egetated Concav	n of one re	7)	Water Aquat True A Hydro Oxidize Presen Recen Thin N Gauge	r-Stained Le ic Fauna (B: Aquatic Plan gen Sulfide ed Rhizosphe nce of Redu t Iron Redu Muck Surfac e or Well Da	13) ots (B14) Odor (C1) res on Living Roced Iron (C4) ction in Tilled e (C7) ta (D9)		Surface S Drainage Dry-Seas Crayfish Saturation Stunted X Geomory	oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2)
Primary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo X Inundation Sparsely Vo	Y rology Indicate ators (minimum Vater (A1) er Table (A2) n (A3) arks (B1) Deposits (B2) osits (B3) Or Crust (B4) osits (B5) n Visible on Aeria egetated Concav	n of one re Il Imagery (B' re Surface (Bi	7)	Water Aquat True A Hydro Oxidize Preser Recen Thin N Gauge Other	r-Stained Le ic Fauna (B: Aquatic Plan gen Sulfide ed Rhizosphe nce of Redu t Iron Redu Muck Surfac e or Well Da (Explain in	13) ots (B14) Odor (C1) res on Living Ro ced Iron (C4) ction in Tilled e (C7) ta (D9) Remarks)		Surface S Drainage Dry-Seas Crayfish Saturation Stunted X Geomory	oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1) ohic Position (D2)
Primary Indica Surface W High Water Ma Sediment Drift Depo Algal Mat Iron Depo X Inundation Sparsely W	Y rology Indicate ators (minimur Vater (A1) er Table (A2) n (A3) arks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) n Visible on Aeria egetated Concav ations: r Present?	n of one re Il Imagery (Bi e Surface (Bi	7) 8) _ No _	Water Aquat True A Hydro Oxidize Preser Recen Thin N Gauge Other	r-Stained Le ic Fauna (B: Aquatic Plan gen Sulfide ed Rhizosphe nce of Redu t Iron Redu Muck Surfac e or Well Da (Explain in	nts (B14) Odor (C1) res on Living Ro ced Iron (C4) ction in Tilled e (C7) ta (D9) Remarks)	Soils (C6)	Surface S Drainage Dry-Seas Crayfish Saturation Stunted X Geomory X FAC-Neu	oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1) Ohic Position (D2) tral Test (D5)
Primary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo X Inundation Sparsely Vo	Y rology Indicate ators (minimum Vater (A1) er Table (A2) n (A3) arks (B1) Deposits (B2) osits (B3) Or Crust (B4) osits (B5) n Visible on Aeria egetated Concave ations: r Present?	n of one re Il Imagery (B' re Surface (Bi	7) 8) _ No _ _ No _	Water Aquat True A Hydro Oxidize Preser Recen Thin N Gauge Other	r-Stained Le ic Fauna (B: Aquatic Plan gen Sulfide ed Rhizosphe nce of Redu t Iron Redu Muck Surfac e or Well Da (Explain in	13) ots (B14) Odor (C1) res on Living Ro ced Iron (C4) ction in Tilled e (C7) ta (D9) Remarks)	Soils (C6)	Surface S Drainage Dry-Seas Crayfish Saturation Stunted X Geomory	oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1) whic Position (D2)
Primary Indica Surface W High Water Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo X Inundation Sparsely W	Y rology Indicate ators (minimum Vater (A1) er Table (A2) n (A3) arks (B1) Deposits (B2) osits (B3) Or Crust (B4) osits (B5) n Visible on Aeria egetated Concave ations: r Present? Present?	n of one re Il Imagery (B' e Surface (B' Yes Yes	7) 8) _ No _ _ No _	Water Aquat True A Hydro Oxidize Preser Recen Thin N Gauge Other	r-Stained Le ic Fauna (B: Aquatic Plan gen Sulfide ed Rhizosphe nce of Redu t Iron Redu Auck Surfac e or Well Da (Explain in (inches): (inches):	nts (B14) Odor (C1) res on Living Ro ced Iron (C4) ction in Tilled e (C7) ta (D9) Remarks)	Soils (C6)	Surface S Drainage Dry-Seas Crayfish Saturation Stunted X Geomory X FAC-Neu	oil Cracks (B6) Pattern (B10) on Water Table (C2) Burrows (C8) Visible on Aerial Imagery (C9) or Stressed Plants (D1) Ohic Position (D2) tral Test (D5)

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC		City/Cour			State: SD		npling Dan	-	/2018 38
Investigator(s): Paul SWARTZINSKI					wnship, Range:		,,		
Landform (hillslope, terrace, etc.): <u>channel</u>					cave, convex, none				
Slope (%): <5% Lat:			Long:				tum: NA	.D83	
Soil Map Unit Name:			.			IWI classificatio			
Are climatic/hydrologic conditions on the site ty			_			no, explain in R			
Are Vegetation No , Soil No , or Hydr							nt? Yes	X	No
Are Vegetation No , Soil No , or Hydr					if needed, explain ii				
SUMMARY OF FINDINGS – Attach site	map show	ing sampli	ng poi	int loca	tions, transects	, important	feautre	s, etc.	
Hydrophytic Vegetation Present? Yes	No.	X							
Hydric Soil Present? Yes	No	X			mpled Area	Vac	No. V		
Wetland Hydrology Present? Yes	No	X	'	within a	Wetland?	Yes	NO A	•	
Remarks:									
UPLAND									
OF LAND									
VEGETATION – Use scientific names of	plants								
	Absolute	DominantS	Indica	itor	Dominance Te	est Worksheet:			
<u>Tree Stratum</u> (Plot size: <u>30</u>)	% Cover	pecies?	Status	S					
					Number of Do	minant Species FACW, or FAC:		0	(A)
1.					Total Number				(7.1)
- '	-	= Total Co	vor		Species Across			1	(B)
		= 10tal C0	ver			minant Species			(-)
Sapling/Shrub Stratum (Plot size: 15)					FACW, or FAC:		0.0%	(A/B)
1.					Prevalence Inc	dex Worksheet	••		
	•	= Total Co	ver					etan la collección	
Horb Stratum (Diet size) F			•••		Total % Cover		IVIUIT	tiply by:	_
Herb Stratum (Plot size: 5					OBL species	0%	_ x1	0.0%	
1. Bromus inermis	50%	Υ	FAC	U	FACW species	0%	x 2	0.0%	_
2					FAC species	0%	x 3	0.0%	
	50%	= Total Co	ver		FACU species	50%	x 4	200.0%	
Woody Vine Stratum (Plot size: 15)				UPL species	0%	x 5	0.0%	_
	="				Column Totals				(D)
1.							(A)	200%	(B)
	-				Prevalence	Index = B/A =		4.00	
		= Total Co	ver		Hydrophytic V	egetation Indi	cators:		
					N 1 - Rapid T	est for Hydrop	hytic Veg	etation	
					N 2 - Domina	ance Test if >50)%		
						ence Index is ≤ 3			
					data in Re	ological Adapta marks or on a s tic Hydrophytic	eperate :	sheet)	
					Indicators of hyd		-		-
					present, unless d	listurbed or pro	blematic		
					Hydrophytic Vegetation				
					Present?	Yes	No	X	
Remarks: UPLAND adjacent to harvested Soy	bean								

Profile Description: (Desc	ribe to the c	depth needed	to document the	indicator or co	nfirm the a	bsence of indicator	
Depth Ma	itrix		Redox I	Features			
(inches) Color:	%	Co	olor: %	Type:	Loc:	Texture:	Remarks:
20 10YR 3/2	L					Clay Loam	
Type: C=Concentration, D	=Depletion,	RM=Reduced	Matrix, CS=Covere	ed or Coated Sa	nd Grains	Location:	PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (Ap	-					Indicators for Probler	-
	plicable to			-			•
Histosol (A1) Histic Epipedon (A2)			Sandy Gleyed Matr Sandy Redox (S5)	IX (54)		Coast Prairie Red Dark Surface (S7)	` '
Black Histic (A3)			Stripped Matrix (S6	5)		Iron-Manganese	
Hydrogen Sulfide (A4	.)		oamy Mucky Mine			Very Shallow Dar	·
Stratified Layers (A5)	,		oamy Gleyed Mati			Other (Explain in	
2 cm Muck (A10)			Depleted Matrix (F				,
Depleted Below Dark	Surface (A1	1)F	Redox Dark Surface	e (F6)			
Thick Dark Surface (ASandy Mucky Minera	•		Depleted Dark Surf Redox Depressions			Indicators of hydroph wetland hydrology mo	, •
						disturbed or problems	atic.
Restrictive Layer (if prese	nt):						
Type:	,.						
Depth (inches):						Hydric Soil Present?	YesNo X
Remarks:					ļ		
HYDROLOGY							
Wetland Hydrology Indica Primary Indicators (minim		equired: checl	k all that annly)			Secondary Inc	dicators (2 or more required)
Surface Water (A1)	uni oi one it	equired, crice	Water-Stained L	_eaves (B9)		•	oil Cracks (B6)
High Water Table (A2)	}	_	Aquatic Fauna (I				Pattern (B10)
Saturation (A3)			True Aquatic Pla			-	on Water Table (C2)
Water Marks (B1)			Hydrogen Sulfid	le Odor (C1)		Crayfish E	Burrows (C8)
Sediment Deposits (B	2)	_	Oxidized Rhizosph	neres on Living Ro	oots (C3)	Saturation	Visible on Aerial Imagery (C9)
Drift Deposits (B3)		_	Presence of Red	, ,			or Stressed Plants (D1)
Algal Mat or Crust (B4)	_	Recent Iron Red		Soils (C6)		hic Position (D2)
Iron Deposits (B5) Inundation Visible on Ae	rial Imagery (f		Thin Muck Surfa Gauge or Well D	` '		FAC-Neut	ral Test (D5)
Sparsely Vegetated Cond		•	Other (Explain in				
		_		,			
Field Observations:							
Surface Water Present?	Yes	NoX	Depth (inches):	NA			
Water Table Present?	Yes	NoX	Depth (inches):	NA	Wetland	l Hydrology Present?	Yes No X
Saturation Present?	Yes	NoX	Depth (inches):	NA			<u> </u>
(includes capillary fringe)							
Describe Recorded Data (s	tream guage	e, monitoring	well, aerial photos	s, previous insp	ections), if a	available:	
Remarks:							

Landform (hillslope, terrace, etc.): depression Slope (%): <5% Lat: Soil Map Unit Name: Are climatic/hydrologic conditions on the site ty Are Vegetation No , Soil No , or Hydro Are Vegetation No , Soil No , or Hydro SUMMARY OF FINDINGS – Attach site Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes	rpical for this ology No	time of year? significantly of naturally pro ing samplin X	Section ocal relie Long: Yesdisturbed blematic ng point ls t	Stann, Towns f (concav X	te: SD ship, Range: ve, convex, none): NW No (if no "Normal Circumst eeded, explain in l ons, transects,	Convex Convex Dat VI classificatio Control Control	um: NAI n: emarks.) nt? Yes	x s, etc.	141
VEGETATION - Use scientific names of	nlante								
<u>Tree Stratum</u> (Plot size: <u>30</u>) 1	Absolute % Cover	•	Indicato Status	r	Dominance Test Number of Dom That Are OBL, FA	inant Species ACW, or FAC:		0	_ (A)
Sapling/Shrub Stratum (Plot size: 15			er		Species Across A Percent of Domi	All Strata: nant Species		0.0%	(B) (A/B)
					That Are OBL, FA			3.070	(A/B)
1		= Total Cov	er	_	Prevalence Inde			nly by	
Herb Stratum (Plot size: 5)		_			OBL species	0%	x 1	ply by: 0.0%	_
1					FACW species FAC species	0%	x 2 x 3	0.0%	<u> </u>
		_ = Total Cov	er		FACU species	0%	_ x 4	0.0%	
Woody Vine Stratum (Plot size: 15)				UPL species	0%	_ x 5	0.0%	
					Column Totals:	#Type!	(A)	#Type!	(B)
1.		Tabal Carr			Prevalence In	dex = B/A =	#	Type!	
	-	_ = Total Cov	er		Hydrophytic Ve	getation Indic	ators:		<u>—</u>
					N 1 - Rapid Te			etation	
					N 2 - Dominan		-		
					#### 3 - Prevalen	ce Index is ≤ 3	3.0		
					N 4 - Morphologia data in Rem N Problematic ndicators of hydric present, unless dis	arks or on a s Hydrophytic c soil and wet	eperate s Vegetatio land hydr	heet) on (Explair	n)
					Hydrophytic Vegetation Present?	Yes	No	<u>x</u>	
Remarks: SOYBEAN FIELD HARVESTED NO VE	GETATION								

':I \	Matrix					eatures					DI
inches) Colo	<u>: 9</u>	<u> </u>	Col	lor:	%	Type:	Loc:	<u></u>	xture:	ŀ	Remarks:
0-20 10YR 3	3/1 10	0%						Cla	y Loam		
ype: C=Concentration,	D=Depletion,	, RM=Re	duced N	Matrix, CS=C	overed	or Coated Sa	nd Grains		Location:	PL=Pore Li	ining, M=Matrix
lydric Soil Indicators: (Applicable to	all LRRs	, unles	s otherwise	noted.)			Indicators	for Probler	natic Hydr	ic Soils
Histosol (A1) Histic Epipedon (A Black Histic (A3) Hydrogen Sulfide (Stratified Layers (A 2 cm Muck (A10) X Depleted Below Da Thick Dark Surface Sandy Mucky Mine	A4) 5) ark Surface (A (A12)	11)	Sa S	andy Gleyed andy Redox tripped Matro pamy Mucky pamy Gleyed epleted Mat edox Dark St epleted Dark edox Depres	(S5) rix (S6) Minera I Matrix rix (F3) urface (I	el (F1) ((F2) F6) ce (F7)		Dark Iron- Very Othe	t Prairie Red Surface (S7) Manganese Shallow Dar r (Explain in of hydrophydrology mu or problema	Masses (F k Surface (Remarks) ytic vegeta ust be pres	(TF12) ation and
Restrictive Layer (if pre	· 								il Present?		X No
Depth (inches):	AV										
Remarks: SOYBEAN F	IELD										
	linatore										
Wetland Hydrology Inc		required	·check	all that ann	w)			Se	acondary Inc	licators (2	or more require
Wetland Hydrology Inc Primary Indicators (min		required	; check			aves (B9)		Se	•	-	or more require
Netland Hydrology Inc Primary Indicators (min Surface Water (A1)	imum of one	required	; check	all that appl Water-Sta Aguatic Fa	ned Lea	` '		Se —	Surface So	oil Cracks ((B6)
Wetland Hydrology Inc Primary Indicators (min	imum of one	required	; check	Water-Sta	ned Lea una (B1	13)		Se	Surface So Drainage	-	(B6) 10)
High Water Table (imum of one	required	; check 	Water-Sta Aquatic Fa	ned Lea una (B1 tic Plan	l3) ts (B14)		Se	Surface So Drainage Dry-Seaso	oil Cracks (Pattern (B	(B6) 10) able (C2)
Primary Indicators (min Surface Water (A1) High Water Table (A Saturation (A3)	imum of one	required	; check 	Water-Sta Aquatic Fa True Aqua Hydrogen	ned Lea una (B1 tic Plan Sulfide	l3) ts (B14)	pots (C3)	Se	Surface So Drainage Dry-Seaso Crayfish E	oil Cracks (Pattern (B on Water T Burrows (C	(B6) 10) able (C2)
Wetland Hydrology Inc Primary Indicators (min Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1)	imum of one	required	; check 	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Rh	ned Lea una (B1 tic Plan Sulfide izospher	13) ts (B14) Odor (C1)	pots (C3)	Se	Surface Son Drainage Dry-Seaso Crayfish E Saturation	oil Cracks (Pattern (B on Water T Burrows (Co Visible on A	(B6) 10) able (C2) 8)
Primary Indicators (min Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits	A2) (B2)	required	; check	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence o	ned Lea una (B1 tic Plan Sulfide izospher of Reduc	ts (B14) Odor (C1) res on Living Ro		Se	Surface Son Drainage Dry-Season Crayfish E Saturation Stunted o	oil Cracks (Pattern (B on Water T Burrows (Co Visible on A	(B6) 10) Fable (C2) 8) Aerial Imagery (C9 Plants (D1)
Wetland Hydrology Inc Primary Indicators (min Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3)	A2) (B2)	required	; check 	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence o	ned Lea una (B1 tic Plan Sulfide izospher of Reduce n Reduce	ts (B14) Odor (C1) res on Living Ro ced Iron (C4) ction in Tilled		Se	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (Pattern (Bon Water T Burrows (Co Visible on A	(B6) 10) Fable (C2) 8) Aerial Imagery (C9 Plants (D1) n (D2)
Primary Indicators (min Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust (imum of one A2) (B2) B4) Aerial Imagery	(B7)	; check	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence o	ined Lea una (B1 tic Plan Sulfide izospher of Reduc n Reduc Surface Well Dat	ts (B14) Odor (C1) res on Living Roced Iron (C4) ction in Tilled e (C7) ta (D9)		Se	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (Pattern (B on Water T Burrows (C Visible on A or Stressed hic Positio	(B6) 10) Fable (C2) 8) Aerial Imagery (C9 Plants (D1) n (D2)
Wetland Hydrology Inc Primary Indicators (min Surface Water (A1) High Water Table (A) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust (B1) Iron Deposits (B5) Inundation Visible on Sparsely Vegetated Co	imum of one A2) (B2) B4) Aerial Imagery	(B7)	; check	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence of Recent Iro Thin Muck Gauge or N	ined Lea una (B1 tic Plan Sulfide izospher of Reduc n Reduc Surface Well Dat	ts (B14) Odor (C1) res on Living Roced Iron (C4) ction in Tilled e (C7) ta (D9)		Se	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (Pattern (B on Water T Burrows (C Visible on A or Stressed hic Positio	(B6) 10) Fable (C2) 8) Aerial Imagery (C9 Plants (D1) n (D2)
Wetland Hydrology Inc Primary Indicators (min Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust (A) Iron Deposits (B5) Inundation Visible on Sparsely Vegetated Co	imum of one A2) (B2) B4) Aerial Imagery oncave Surface	(B7)		Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence of Recent Iro Thin Muck Gauge or N	ned Lea una (B1 tic Plan Sulfide izospher of Reduc n Reduc Surface Well Dat lain in I	ts (B14) Odor (C1) res on Living Roced Iron (C4) ction in Tilled e (C7) ta (D9)		Se	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (Pattern (B on Water T Burrows (C Visible on A or Stressed hic Positio	(B6) 10) Fable (C2) 8) Aerial Imagery (C9 Plants (D1) n (D2)
Wetland Hydrology Inc Primary Indicators (min Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust (A) Iron Deposits (B5) Inundation Visible on Sparsely Vegetated Co	imum of one A2) (B2) B4) Aerial Imagery oncave Surface	(B7) (B8) No _	x	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence o Recent Iro Thin Muck Gauge or V	ned Lea una (B1 tic Plan Sulfide izospher of Reduc Surface Vell Dat lain in I	ts (B14) Odor (C1) res on Living Roced Iron (C4) ction in Tilled e (C7) ta (D9) Remarks)	Soils (C6)	Se —	Surface Solution Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp FAC-Neut	oil Cracks (Pattern (B on Water T Burrows (C Visible on A or Stressed hic Positio	(B6) 10) Fable (C2) 8) Aerial Imagery (C9 Plants (D1) n (D2) 5)
Primary Indicators (min Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust (Iron Deposits (B5) Inundation Visible on	imum of one A2) (B2) B4) Aerial Imagery oncave Surface Yes Yes Yes Yes Yes	(B7) (B8) No No	X	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence of Recent Iro Thin Muck Gauge or N Other (Exp	ned Lea una (B1 tic Plan Sulfide izospher of Reduc Neduc Surface Well Dat Ilain in I	ts (B14) Odor (C1) res on Living Ro ced Iron (C4) ction in Tilled e (C7) ta (D9) Remarks)	Soils (C6)		Surface Solution Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp FAC-Neut	oil Cracks (Pattern (B Pattern (B On Water T Burrows (C Visible on A or Stressed hic Positio ral Test (D	(B6) 10) Fable (C2) 8) Aerial Imagery (C9 Plants (D1) n (D2) 5)

Project/Site: Tatanka Ridge Wind Project		City/County:	Deuel Count	tv	Sampli	ng Date:	10/13/2018
Applicant/Owner: Buffalo Ridge III, LLC				tate: SD		ng Point:	DP142
Investigator(s): P. Swartzinski; R. Walker		S	-	nship, Range:		, ,	
Landform (hillslope, terrace, etc.): depressio	n			ave, convex, none):	Linear Slope		
Slope (%): <5% Lat:		Long	g:		Datun	n: NAD83	
Soil Map Unit Name:					classification:		
Are climatic/hydrologic conditions on the site ty	pical for this	time of year? Yes	s X	No(if no,	explain in Rem	arks.)	
Are Vegetation <u>No</u> , Soil <u>No</u> , or Hydro	logy No	significantly distu	urbed? Ar	e "Normal Circumsta	nces" present?	Yes	X No
Are Vegetation <u>No</u> , Soil <u>No</u> , or Hydro	logy No	naturally probler	matic? (if	needed, explain in Re	emarks.)		
SUMMARY OF FINDINGS – Attach site i	map showi	ing sampling p	oint locat	ions, transects, ir	mportant fe	autres, et	c.
Hydrophytic Vegetation Present? Yes _	No.	X	_				
Hydric Soil Present? Yes	No	X	Is the San within a \	npled Area	es No	X	
Wetland Hydrology Present? Yes _	No No	X	witiiii a v	wetianu:			
Remarks: UPLAND							
VEGETATION – Use scientific names of	•						
Tree Stratum (Plot size: 30)	Absolute % Cover	DominantS Indi		Dominance Test \	Worksheet:		
, <u> </u>	70 COVC1	pecies. Star	ius	Number of Domir	•	0	(A)
1.				That Are OBL, FAC			(//)
		= Total Cover		Species Across All		1	(B)
Sapling/Shrub Stratum (Plot size: 15)			Percent of Domin That Are OBL, FAC	•	0.0%	(A/B)
1.				Prevalence Index	Worksheet:		
		= Total Cover		Total % Cover of:	WOIRSHEEL.	Multiply b	w.
Herb Stratum (Plot size: 5)				OBL species	0%		0%
1. Bromus inermis	85%	Y F	ACU	·		-	
2. Phleum pratense	20%		ACU	FACW species	15%		.0%
3. Phalaris arundinacea	15%		ACW	FAC species	0%	x 3 0.	0%
				FACU species	105%	x 4 420	0.0%
4				UPL species	0%	x 5 0.	0%
	120%	= Total Cover		Column Totals:	120.0%	(A) 45	0% (B)
Woody Vine Stratum (Plot size: 15)			Prevalence Inde	·	3.75	、 ,
1.				Hydrophytic Vege	tation Indicat	ors:	<u></u>
1.		= Total Cover		N 1 - Rapid Test			.
		_ = Total Cover		N 2 - Dominance		ic vegetatic	ш
				N 3 - Prevalence			
				N 4 - Morpholog	gical Adaptatio		
				N Problematic F Indicators of hydric present, unless distu	soil and wetlan	getation (Ex d hydrology	(plain)
				Hydrophytic Vegetation Present?	Yes	No X	-
Remarks: UPLAND							

Depth Ma (inches) Color:	de seis s										
			Cala		x Features		 Texture	۵٠	R	emarks:	
O-20 Color: 10YR 3/2			Colo	r:	6 Type:	Loc:	Clay Loai		•	CITICINS	-
U-2U 1U1K 3/2	100	J <i>7</i> 0					Clay Loai				
pe: C=Concentration, D=	Depletion,	RM=Red	luced Ma	atrix, CS=Cove	red or Coated Sa	nd Grains	Lo	cation: I	PL=Pore Li	ning, M=I	Matrix
ydric Soil Indicators: (Ap	plicable to	all LRRs,	unless o	therwise not	ed.)		Indicators for I	Problem	atic Hydri	c Soils	
Histosol (A1)		<u>.</u>	San	dy Gleyed Ma	trix (S4)		Coast Prai	irie Redo	oc (A16)		
Histic Epipedon (A2)		-		dy Redox (S5)			Dark Surfa				
Black Histic (A3)	١	-		pped Matrix (S			Iron-Man	_			
Hydrogen Sulfide (A4 Stratified Layers (A5))			my Mucky Mir my Gleyed Ma			Very Shall Other (Exp			IF12)	
2 cm Muck (A10)				oleted Matrix (Other (LX)	piaiii iii i	Nemai KS)		
Depleted Below Dark	Surface (A1	.1)		ox Dark Surfac							
Thick Dark Surface (A		-,		leted Dark Su			Indicators of hy	vdronhv	tic vegetat	ion and	
Sandy Mucky Minera	l (S1)	-		ox Depression			wetland hydro disturbed or pr	logy mu	st be prese		SS
estrictive Layer (if prese	nt):										
Type: None	-						Hydric Soil Dec	con+3	Ves	No	v
Depth (inches): NA							Hydric Soil Pre	sentr	Yes	No	X
emarks:						II.					
etland Hydrology Indica		equired;	check al	I that apply)			Second	dary Ind	icators (2 c	or more r	required
etland Hydrology Indica		equired;		l that apply) Water-Stained	I Leaves (B9)				icators (2 o		required)
Vetland Hydrology Indica rimary Indicators (minimon Surface Water (A1) High Water Table (A2)	um of one re	equired;	—)	Water-Stained Aquatic Fauna	(B13)		Su Dr	rface So ainage F	il Cracks (E Pattern (B1	36) .0)	equired)
Vetland Hydrology Indicarimary Indicators (minimal Surface Water (A1) High Water Table (A2) Saturation (A3)	um of one re	equired;		Water-Stained Aquatic Fauna True Aquatic P	(B13) Plants (B14)		Su Dr Dr	rface So ainage F y-Seaso	il Cracks (E Pattern (B1 n Water Ta	36) .0) able (C2)	required)
Vetland Hydrology Indicarimary Indicators (minimal Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	um of one re	equired;		Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulf	(B13) Plants (B14) ide Odor (C1)	pots (C2)	Su Dr Dr Cr:	rface So ainage F y-Seaso ayfish B	il Cracks (E Pattern (B1 n Water Ta urrows (C8	36) .0) able (C2) s)	
Vetland Hydrology Indica rimary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2	um of one re	equired;		Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulf Oxidized Rhizos _l	(B13) Plants (B14) ide Odor (C1) pheres on Living Ro	pots (C3)	Su Dr Dr Cr; Sat	rface So ainage F y-Seaso ayfish Bo turation V	il Cracks (E Pattern (B1 n Water Ta urrows (C8 Visible on A	36) .0) able (C2) b) erial Imago	ery (C9)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	um of one ro	equired;		Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulf Dxidized Rhizos _l Presence of Re	(B13) Plants (B14) ide Odor (C1) pheres on Living Ro educed Iron (C4)		Su Dr Dr Cr: Sat Str	rface So ainage F y-Seaso ayfish Bi turation V unted or	il Cracks (E Pattern (B1 In Water Ta Jurrows (C8 Visible on Ad	36) .0) able (C2) s) erial Imag Plants (D	ery (C9)
Vetland Hydrology Indication rimary Indicators (minimizer) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4	um of one ro	equired;		Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulf Oxidized Rhizos Presence of Re Recent Iron Re	(B13) Plants (B14) ide Odor (C1) pheres on Living Ro educed Iron (C4) eduction in Tilled		Su DrDrCriSatStuGe	rface So ainage F y-Seaso ayfish B turation V unted or eomorph	il Cracks (E Pattern (B1 n Water Ta urrows (C8 Visible on A	36) .0) able (C2) s) erial Image Plants (D n (D2)	ery (C9)
Vetland Hydrology Indicarimary Indicators (minimizer) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	um of one ro			Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulf Dxidized Rhizos _l Presence of Re	(B13) Plants (B14) ide Odor (C1) pheres on Living Ro educed Iron (C4) eduction in Tilled face (C7)		Su DrDrCriSatStuGe	rface So ainage F y-Seaso ayfish B turation V unted or eomorph	il Cracks (E Pattern (B1 n Water Ta urrows (C8 Visible on Ac Stressed I nic Positior	36) .0) able (C2) s) erial Image Plants (D n (D2)	ery (C9)
Vetland Hydrology Indicationary Indicators (minimal Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	um of one ro 2)) rial Imagery (E	B7)		Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulf Dxidized Rhizosp Presence of Re Recent Iron Re Thin Muck Sur	(B13) Plants (B14) ide Odor (C1) pheres on Living Ro educed Iron (C4) eduction in Tilled face (C7) Data (D9)		Su DrDrCriSatStuGe	rface So ainage F y-Seaso ayfish B turation V unted or eomorph	il Cracks (E Pattern (B1 n Water Ta urrows (C8 Visible on Ac Stressed I nic Positior	36) .0) able (C2) s) erial Image Plants (D n (D2)	ery (C9)
Vetland Hydrology Indicarimary Indicators (minimary Indicators (minimary Indicators (Minimary Indicators (Material Material Mater	um of one ro 2)) rial Imagery (E	B7)		Water-Stained Aquatic Fauna Irue Aquatic P Hydrogen Sulf Dxidized Rhizosy Presence of Re Recent Iron Re Inin Muck Sur Gauge or Well	(B13) Plants (B14) ide Odor (C1) pheres on Living Ro educed Iron (C4) eduction in Tilled face (C7) Data (D9)		Su DrDrCriSatStuGe	rface So ainage F y-Seaso ayfish B turation V unted or eomorph	il Cracks (E Pattern (B1 n Water Ta urrows (C8 Visible on Ac Stressed I nic Positior	36) .0) able (C2) s) erial Image Plants (D n (D2)	ery (C9)
retland Hydrology Indicationary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Aer Sparsely Vegetated Concord	um of one ro 2) rial Imagery (E ave Surface (E	B7) B8)		Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulf Dxidized Rhizosy Presence of Re Recent Iron Re Thin Muck Sur Gauge or Well Other (Explain	(B13) Plants (B14) ide Odor (C1) pheres on Living Roeduced Iron (C4) eduction in Tilled face (C7) Data (D9) in Remarks)		Su DrDrCriSatStuGe	rface So ainage F y-Seaso ayfish B turation V unted or eomorph	il Cracks (E Pattern (B1 n Water Ta urrows (C8 Visible on Ac Stressed I nic Positior	36) .0) able (C2) s) erial Image Plants (D n (D2)	ery (C9)
retland Hydrology Indicationary Indicators (minimary Indicators (minimary Indicators (minimary Indicators) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Aeron Sparsely Vegetated Concorded Conc	2)) rial Imagery (Eave Surface (E	B7) B8)		Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulf Dxidized Rhizosy Presence of Re Recent Iron Re Thin Muck Sur Gauge or Well Other (Explain	(B13) Plants (B14) ide Odor (C1) pheres on Living Ro educed Iron (C4) eduction in Tilled face (C7) Data (D9) in Remarks)	Soils (C6)	SuDrDrCr:SatStuGeFA	rface So ainage F y-Seaso ayfish Bi turation \ unted or eomorph .C-Neutr	il Cracks (I Pattern (B1 n Water Ta urrows (C8 /isible on Ad Stressed I nic Position al Test (D5	36) .0) able (C2) s) erial Image Plants (D n (D2)	ery (C9)
/etland Hydrology Indicarimary Indicators (minimary Indicators (minimary Indicators (minimary Indicators) — Surface Water (A1) — High Water Table (A2) — Saturation (A3) — Water Marks (B1) — Sediment Deposits (B2) — Drift Deposits (B3) — Algal Mat or Crust (B4) — Iron Deposits (B5) — Inundation Visible on Aeron Sparsely Vegetated Concordate (Concordate (Co	2)) rial Imagery (Eave Surface (E	B7) B8) No No _	X I	Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulf Dxidized Rhizosy Presence of Re Recent Iron Re Thin Muck Sur Gauge or Well Other (Explain Depth (inches)	(B13) Plants (B14) ide Odor (C1) pheres on Living Reduced Iron (C4) eduction in Tilled face (C7) Data (D9) in Remarks)): NA	Soils (C6)	Su DrDrCriSatStuGe	rface So ainage F y-Seaso ayfish Bi turation \ unted or eomorph .C-Neutr	il Cracks (E Pattern (B1 n Water Ta urrows (C8 Visible on Ac Stressed I nic Positior	36) .0) able (C2) s) erial Image Plants (D n (D2)	ery (C9)
Vetland Hydrology Indicarimary Indicators (minimary Indicators (minimary Indicators (Minimary Indicators (Material Material Mater	2) rial Imagery (Eave Surface (E Yes Yes Yes	B7) B8) No No	X I	Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulf Dxidized Rhizos Presence of Re Recent Iron Re Thin Muck Sur Gauge or Well Other (Explain Depth (inches) Depth (inches)	(B13) Plants (B14) ide Odor (C1) pheres on Living Roeduced Iron (C4) eduction in Tilled face (C7) Data (D9) in Remarks) Compared to the compa	Soils (C6)	Su Su Dr Dr Cr: Sat Stu Ge FA	rface So ainage F y-Seaso ayfish Bi turation \ unted or eomorph .C-Neutr	il Cracks (I Pattern (B1 n Water Ta urrows (C8 /isible on Ad Stressed I nic Position al Test (D5	36) .0) able (C2) s) erial Image Plants (D n (D2)	ery (C9)

_	pical for this blogy No blogy No map show	time of year? significantly naturally pro ing sampli	Sec Local re Long: ? Yes r disturb oblema ng poi	Stition, Townsellief (concarding) X Ded? Areatic? (if	nship, Range: nship, Range: nve, convex, none): N\ No (if n e "Normal Circums needed, explain in ions, transects,	Sampl Convex Datur VI classification: o, explain in Ren tances" present	m: NAD83 narks.) Yes X	
Remarks: PEM WITHIN DRAINAGE								
<u>Tree Stratum</u> (Plot size: 30) 1.	Absolute % Cover	DominantS pecies?	Indica Status		Dominance Tes Number of Dom That Are OBL, F Total Number o	ninant Species ACW, or FAC:	2	(A)
Sapling/Shrub Stratum (Plot size: 15)	= Total Co	ver		Species Across A Percent of Dom That Are OBL, F	All Strata: iinant Species	100.0%	(B) 6 (A/B)
1. Herb Stratum (Plot size: 5) 1. Phalaris arundinacea 2. Spartina pectinata 3. Carex nebrascensis	75% 35% 8%	= Total Cov	FAC\ FAC\ OBI	W	Prevalence Index Total % Cover of OBL species FACW species FAC species	8% 110% 0%	Multiply by x 1 8.0 x 2 220 x 3 0.0	0%
4. Woody Vine Stratum (Plot size: 15	118%	= Total Co	ver		FACU species UPL species Column Totals: Prevalence Ir		1.93	
		_ = Total Co	ver		Y 1 - Rapid Te Y 2 - Dominal Y 3 - Prevaler Y 4 - Morpho data in Rem	est for Hydrophy nce Test if >50% nce Index is ≤ 3.0 logical Adaptation narks or on a sep c Hydrophytic Ve ic soil and wetlan	tic Vegetation ons (Provide serate sheet) egetation (Expend hydrology ematic	supporting plain)
Remarks: PEM					Present?			

Profile Desc	ription: (Desc	ribe to the	depth ne	eded to do	cument the ir	ndicator or co	onfirm the a	bsence of indicator	
Depth	Ma	trix			Redox F	eatures			
(inches)	Color:	9	<u> </u>	Color:	%	Type:	Loc:	Texture:	Remarks:
0-4	10YR 2/1	. 100	0%						
4-20	10YR 2/1			10YR 4/6	15%	С	М	Clay Loam	
	10111 2/ 1			10111 4/0					
Type: C=Con	centration, D	Depletion,	RM=Red	uced Matrix	, CS=Covered	d or Coated Sa	nd Grains	Location	PL=Pore Lining, M=Matrix
Hydric Soil I	ndicators: (Ap	plicable to	all LRRs,	unless othe	rwise noted.	.)		Indicators for Proble	
Histoso		•			Gleyed Matrix			Coast Prairie Red	•
	pipedon (A2)		-		Redox (S5)	. (0.)		Dark Surface (S7	• •
l 	istic (A3)		-		d Matrix (S6)			Iron-Manganese	•
Hydrog	en Sulfide (A4)	=		Mucky Miner				rk Surface (TF12)
Stratifie	ed Layers (A5)		-	Loamy	Gleyed Matri	x (F2)		Other (Explain ir	Remarks)
2 cm M	uck (A10)		_	Deplete	ed Matrix (F3))			
X_Deplete	ed Below Dark	Surface (A:	11)	Redox	Dark Surface	(F6)			
Thick D	ark Surface (A	12)	-	Deplete	ed Dark Surfa	ce (F7)		Indicators of hydroph	ytic vegetation and
Sandy N	Mucky Minera	(S1)	-	Redox	Depressions (F8)			ust be present, unless
								disturbed or problem	atic.
Restrictive L	ayer (if prese	nt):							
Type: N	None							Hydric Soil Present?	Yes X No
Depth (i	nches): NA			_				,	
Remarks:							1		
HYDROLO	GY								
Wetland Hy	drology Indica	itors							
Primary Indi	cators (minim	um of one i	required;	check all th	at apply)			Secondary In	dicators (2 or more required)
l 	Water (A1)				er-Stained Le			Surface S	oil Cracks (B6)
_	iter Table (A2)				atic Fauna (B	-			Pattern (B10)
_X_Saturation					e Aquatic Plar				on Water Table (C2)
	Marks (B1)				rogen Sulfide	` '	. (60)		Burrows (C8)
l ——	nt Deposits (B2	2)			•	eres on Living Ro			Visible on Aerial Imagery (C9)
l 	posits (B3)	`				uced Iron (C4)			or Stressed Plants (D1)
	at or Crust (B4 oosits (B5))				iction in Tilled	1 SOIIS (Cb)		phic Position (D2) tral Test (D5)
	on Visible on Ae	rial Imagery I	'R7)		n Muck Surfac ge or Well Da			FAC-Neu	trai rest (D5)
	Vegetated Conc				er (Explain in				
	regetatea come	470 041.400 (,50,	0	ci (Explaiii iii	Nemarks)			
Field Observ	ations:								
Surface Wat	er Present?	Yes	No _	X Dep	th (inches):	NA			
Water Table	Present?	Yes	No _	X Dep	th (inches):	NA	Wetland	Hydrology Present?	Yes X No
Saturation P	resent?	YesX	No _	Dep	th (inches):	6			
	pillary fringe)								
Describe Rec	corded Data (s	tream guag	ge, monit	oring well, a	erial photos,	previous insp	ections), if a	available:	
Remarks:									

	pical for this plogy No plogy No map show	time of year? significantly naturally pro ing sampli	Local relief Long: Yes disturbed oblematic? ng point Is the	State: SD n, Township, Range: (concave, convex, none): L NWI clas X No (if no, exp ? Are "Normal Circumstances (if needed, explain in Rema locations, transects, impo	rks.)	X No
Wetland Hydrology Present? Yes Remarks: UPLAND	No	X	Wit	hin a Wetland? Yes		
VEGETATION – Use scientific names of	plants					
Tree Stratum (Plot size: 30)	Absolute % Cover	DominantS pecies?	Indicator Status	Dominance Test Wor Number of Dominant That Are OBL, FACW, Total Number of Dom	Species or FAC: 1	(A)
Sapling/Shrub Stratum (Plot size: 15)	= Total Co	ver	Species Across All Stra Percent of Dominant That Are OBL, FACW,	ata: 3 Species	
1.		= Total Co	ver	_ Prevalence Index Wo	orksheet: Multiply	hv:
Herb Stratum (Plot size: 5) 1. Bromus inermis 2. Phalaris arundinacea 3. Phleum pratense 4.	75% 25% 25% 25% 125%	Y Y Y = Total Co	FACU FACW FACU	OBL species FACW species FAC species FACU species UPL species	0% x 1 0 25% x 2 5 0% x 3 0 100% x 4 40 0% x 5 0 125.0% (A) 4	0.0% 0.0% 0.0% 0.0% 0.0% 0.0%
1.		_ = Total Co	ver	Hydrophytic Vegetation N 1 - Rapid Test for N 2 - Dominance Te N 3 - Prevalence Inc N 4 - Morphological data in Remarks of N Problematic Hydr Indicators of hydric soil present, unless disturbe Hydrophytic Vegetation	ion Indicators: Hydrophytic Vegetatest if >50% dex is ≤ 3.0 I Adaptations (Provider on a seperate sheer ophytic Vegetation (Fand wetland hydrological)	e supporting et) Explain) gy must be
Remarks: UPLAND						

							bsence of indicato				
/:l\	latrix				Features						
(inches) Color:			Color:	%	Type:	Loc:	Texture:		К	emarks	
0-20 10YR 3/	/1 100	0%									
ype: C=Concentration, [D=Depletion,	RM=Red	luced Mat	rix, CS=Cover	ed or Coated Sa	nd Grains	Loca	ation: P	L=Pore Lir	ning, M=	Matrix
ydric Soil Indicators: (A	Applicable to	all LRRs,	unless ot	herwise note	d.)		Indicators for Pro	oblema	atic Hydri	Soils	
Histosol (A1)			Sand	y Gleyed Mat	rix (S4)		Coast Prairie	e Redo	c (A16)		
Histic Epipedon (A2))	=	Sand	y Redox (S5)			Dark Surface	e (S7)			
Black Histic (A3)		-		ped Matrix (S			Iron-Manga				
Hydrogen Sulfide (A				ny Mucky Min			Very Shallov			F12)	
Stratified Layers (A5	o)	-		ny Gleyed Mat			Other (Expla	aın ın R	emarks)		
2 cm Muck (A10) Depleted Below Dar	rk Surface (A	11)		eted Matrix (F ox Dark Surfac							
Thick Dark Surface (±±, _		eted Dark Sur			Indicators of bud	lranh, +	iawaastat	ion and	
Sandy Mucky Miner		-	•	x Depressions			Indicators of hyd wetland hydrolog disturbed or prol	gy mus	t be prese		SS
estrictive Layer (if pres	ent):										
Type: NONE	-						Hydric Soil Prese	n+2	Yes	No	v
Depth (inches): N.	A						nyuric 3011 Prese	entr	165	INO	X
emarks: UPLAND											
YDROLOGY Vetland Hydrology Indic rimary Indicators (minir		required;							cators (2 c		required)
Vetland Hydrology Indic rimary Indicators (minir Surface Water (A1)	mum of one r	required;	W	/ater-Stained			Surfa	ace Soi	l Cracks (E	86)	required)
Vetland Hydrology Indicrimary Indicators (minir Surface Water (A1) High Water Table (A2	mum of one r	required;	W A	/ater-Stained quatic Fauna	(B13)		Surfa Drai	ace Soi nage P	l Cracks (E attern (B1	66) 0)	required)
Vetland Hydrology Indications (mining Surface Water (A1) High Water Table (A2) Saturation (A3)	mum of one r	required;	W A Ti	/ater-Stained quatic Fauna rue Aquatic Pl	(B13) ants (B14)		Surfa Draii Dry-	ace Soi nage Pa Season	l Cracks (E attern (B1 Water Ta	66) 0) ble (C2)	required)
Vetland Hydrology Indic rimary Indicators (minir Surface Water (A1) High Water Table (A2	mum of one r 2)	required;	W A Tı H	/ater-Stained quatic Fauna rue Aquatic Pl ydrogen Sulfic	(B13) ants (B14)	pots (C3)	Surfa Draii Dry- Cray	ace Soi nage Pa Season rfish Bu	l Cracks (E attern (B1	66) 0) ble (C2))	
Vetland Hydrology Indic rimary Indicators (minir Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1)	mum of one r 2)	required;	W A Ti H 0	/ater-Stained quatic Fauna rue Aquatic Pl ydrogen Sulfic xidized Rhizosp	(B13) ants (B14) de Odor (C1)	pots (C3)	Surfa Draii Dry Cray Satur	ace Soi nage Pa Season fish Bu ration V	l Cracks (E attern (B1 Water Ta rrows (C8	66) 0) ble (C2)) erial Imag	ery (C9)
Vetland Hydrology Indic rimary Indicators (minir Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B	mum of one r 2) 32)	required;	W A Ti H O	/ater-Stained quatic Fauna rue Aquatic Pl ydrogen Sulfic xidized Rhizosp resence of Re	(B13) ants (B14) de Odor (C1) heres on Living Ro		Surfa Drain Dry-i Cray Satur	ace Soi nage Pa Season ofish Bu ration V	l Cracks (E attern (B1 Water Ta rrows (C8 isible on Ae	66) 0) ble (C2)) erial Imag Plants (D	ery (C9)
Vetland Hydrology Indications (Minimary Indicators	mum of one r 2) 32) 4)		W ATIHOPIRITI	Vater-Stained quatic Fauna rue Aquatic Pl ydrogen Sulfic xidized Rhizosp resence of Rec ecent Iron Rec hin Muck Surf	(B13) ants (B14) de Odor (C1) heres on Living Ro duced Iron (C4) duction in Tilled face (C7)		Surfa Drain Dry- Cray Satur Stun Geor	ace Soi nage Pa Season ofish Bu ration V nted or morphi	I Cracks (E attern (B1 Water Ta rrows (C8 isible on Ae Stressed F	66) 0) ble (C2)) crial Imag Plants (D (D2)	ery (C9)
Vetland Hydrology Indic rimary Indicators (minir Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5)	mum of one r 2) 32) 4) erial Imagery ((B7)	W A TI PI RI TI	Vater-Stained quatic Fauna rue Aquatic Pl ydrogen Sulfic xidized Rhizosp resence of Rec ecent Iron Rec hin Muck Surf auge or Well	(B13) ants (B14) de Odor (C1) heres on Living Ro duced Iron (C4) duction in Tilled face (C7) Data (D9)		Surfa Drain Dry- Cray Satur Stun Geor	ace Soi nage Pa Season ofish Bu ration V nted or morphi	I Cracks (E attern (B1 Water Ta rrows (C8 isible on Ae Stressed F ic Position	66) 0) ble (C2)) crial Imag Plants (D (D2)	ery (C9)
Vetland Hydrology Indic rimary Indicators (minir Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B	mum of one r 2) 32) 4) erial Imagery ((B7)	W A TI PI RI TI	Vater-Stained quatic Fauna rue Aquatic Pl ydrogen Sulfic xidized Rhizosp resence of Rec ecent Iron Rec hin Muck Surf	(B13) ants (B14) de Odor (C1) heres on Living Ro duced Iron (C4) duction in Tilled face (C7) Data (D9)		Surfa Drain Dry- Cray Satur Stun Geor	ace Soi nage Pa Season ofish Bu ration V nted or morphi	I Cracks (E attern (B1 Water Ta rrows (C8 isible on Ae Stressed F ic Position	66) 0) ble (C2)) crial Imag Plants (D (D2)	ery (C9)
Vetland Hydrology Indicrimary Indicators (minir Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Inundation Visible on A Sparsely Vegetated Cor	mum of one r 2) 32) 4) erial Imagery ((B7)	W A TI PI RI TI	Vater-Stained quatic Fauna rue Aquatic Pl ydrogen Sulfic xidized Rhizosp resence of Rec ecent Iron Rec hin Muck Surf auge or Well	(B13) ants (B14) de Odor (C1) heres on Living Ro duced Iron (C4) duction in Tilled face (C7) Data (D9)		Surfa Drain Dry- Cray Satur Stun Geor	ace Soi nage Pa Season ofish Bu ration V nted or morphi	I Cracks (E attern (B1 Water Ta rrows (C8 isible on Ae Stressed F ic Position	66) 0) ble (C2)) crial Imag Plants (D (D2)	ery (C9)
Vetland Hydrology Indications (mining Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B3) Iron Deposits (B5) Inundation Visible on A Sparsely Vegetated Cordicated Cordinal Material (A) Incomplete the Cordinal (A) Incomplete the Cordinal (B)	mum of one r 2) 32) 4) erial Imagery (ncave Surface ((B7) (B8)	W A TI O PI TI G O	Jater-Stained quatic Fauna (rue Aquatic Plydrogen Sulfic kidized Rhizospresence of Recent Iron Rechin Muck Surfauge or Well (ther (Explain))	(B13) ants (B14) de Odor (C1) heres on Living Ro duced Iron (C4) duction in Tilled face (C7) Data (D9) in Remarks)		Surfa Drain Dry- Cray Satur Stun Geor	ace Soi nage Pa Season ofish Bu ration V nted or morphi	I Cracks (E attern (B1 Water Ta rrows (C8 isible on Ae Stressed F ic Position	66) 0) ble (C2)) crial Imag Plants (D (D2)	ery (C9)
Vetland Hydrology Indications (mining Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B3) Iron Deposits (B5) Inundation Visible on A3 Sparsely Vegetated Cordinated Cordinate	mum of one r 2) 32) 4) erial Imagery (neave Surface ((B7) (B8)	W A ATI	Jater-Stained quatic Fauna rue Aquatic Pl ydrogen Sulfic xidized Rhizosp resence of Re- ecent Iron Rec hin Muck Surf auge or Well ther (Explain	(B13) ants (B14) de Odor (C1) heres on Living Ro duced Iron (C4) duction in Tilled face (C7) Data (D9) in Remarks)	Soils (C6)	Surfa Draii Dry- Satur Stun Geoi FAC-	ace Soi nage Pa Season rfish Bu ration V nted or morphi -Neutra	I Cracks (E attern (B1 Water Ta rrows (C8 isible on Ae Stressed F ic Position al Test (D5	a6) 0) ble (C2)) Prial Imag Plants (D (D2)	ery (C9) 1)
Vetland Hydrology Indicrimary Indicators (mining Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B3) Inundation Visible on A3 Sparsely Vegetated Considerate Water Present?	num of one r 2) 32) 4) erial Imagery (ncave Surface (Yes Yes	(B7) (B8) No No	X D	Jater-Stained quatic Fauna (rue Aquatic Plydrogen Sulfic xidized Rhizospresence of Recent Iron Rechin Muck Surfauge or Well ther (Explain in the faunt	(B13) ants (B14) de Odor (C1) heres on Living Ro duced Iron (C4) duction in Tilled face (C7) Data (D9) in Remarks)	Soils (C6)	Surfa Drain Dry- Cray Satur Stun Geor	ace Soi nage Pa Season rfish Bu ration V nted or morphi -Neutra	I Cracks (E attern (B1 Water Ta rrows (C8 isible on Ae Stressed F ic Position	a6) 0) ble (C2)) Prial Imag Plants (D (D2)	ery (C9)
Vetland Hydrology Indications (mining Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B3) Iron Deposits (B5) Inundation Visible on A3 Sparsely Vegetated Cordinated Cordinate	num of one r 2) 32) 4) erial Imagery (ncave Surface (Yes Yes Yes	(B7) (B8) No No	X D X D	Jater-Stained quatic Fauna (rue Aquatic Plydrogen Sulfickidized Rhizospresence of Recent Iron Rechin Muck Surfauge or Well (ther (Explain in ther (Explain in ther (inches)); epth (inches);	(B13) ants (B14) de Odor (C1) heres on Living Ro duced Iron (C4) duction in Tilled face (C7) Data (D9) in Remarks) NA NA NA NA	Soils (C6) Wetland	Surfa DrainDryCraySaturStunGeor _FAC-	ace Soi nage Pa Season rfish Bu ration V nted or morphi -Neutra	I Cracks (E attern (B1 Water Ta rrows (C8 isible on Ae Stressed F ic Position al Test (D5	a6) 0) ble (C2)) Prial Imag Plants (D (D2)	ery (C9) 1)

Project/Site: Tatanka Ridge Wind Project		City/Cour	ntv: Dei	uel Count	v	Samp	ling Date:	10/13	/2018
Applicant/Owner: Buffalo Ridge III, LLC			<u>De</u>		ate: SD		ling Point:	DP14	
Investigator(s): P. Swartzinski; R. Walker			Sect		nship, Range:				
Landform (hillslope, terrace, etc.): depression	n	ı			ive, convex, none)	: Convex			
Slope (%): <5% Lat:	<u> </u>	_			-, ,,		m: NAD83	3	
Soil Map Unit Name:			_			WI classification:			
Are climatic/hydrologic conditions on the site ty	pical for this	time of year?	? Yes	Х	No (if n	o, explain in Rer	narks.)		
Are Vegetation No , Soil No , or Hydro	ology No	significantly	disturb	ed? Are	e "Normal Circums	tances" present	? Yes _	Х	No
Are Vegetation <u>No</u> , Soil <u>No</u> , or Hydro	ology No	naturally pro	oblemat	tic? (if	needed, explain in	Remarks.)			
SUMMARY OF FINDINGS – Attach site	map show	ing sampli	ng poii	nt locati	ions, transects,	important fe	autres, e	etc.	
Hydrophytic Vegetation Present? Yes	X No								
Hydric Soil Present? Yes	X No				pled Area				
Wetland Hydrology Present? Yes	X No		V	within a V	Vetland?	Yes X N	o		
Remarks:									
PEM WITHIN DRAINAGE									
VEGETATION – Use scientific names of	•								
Tree Stratum (Plot size: 30)	Absolute	DominantS			Dominance Tes	st Worksheet:			
Tree stratum (110t size. 30)	% Cover	pecies?	Status		Number of Don	ninant Species			
					That Are OBL, F	ACW, or FAC:	2		(A)
1	-				Total Number o	of Dominant			<i>(</i> -)
	-	_ = Total Co	ver		Species Across		2	<u> </u>	(B)
Sapling/Shrub Stratum (Plot size: 15)				Percent of Dom That Are OBL, F	•	100.	0%	(A/B)
1.					Prevalence Ind	ov Morkshooti			
		= Total Co	ver				0.4	. 1	
Horb Stratum (Diot size: E	-	= 10ta1 co	VCI		Total % Cover o		Multiply	•	_
Herb Stratum (Plot size: 5)	700/	.,	o.		OBL species	4%	x 1	4.0%	_
1. Phalaris arundinacea	70%	Y	FACW		FACW species	105%	x 22:	10.0%	=
2. Spartina pectinata	35%	Y	FACV		FAC species	0%	x 3	0.0%	_
3. Phleum pratense	10%	N N	FACL		FACU species	10%	x 4 4	10.0%	
4. Schoenoplectus acutus	4%	N	OBL	<u> </u>	UPL species	0%	x 5	0.0%	-
5	-				Column Totals:		-	254%	(B)
	119%	= Total Co	ver						_ (b)
Woody Vine Stratum (Plot size: 15)				Prevalence Ir	шех = в/А =	2.13	3	
					Hydrophytic Ve	egetation Indica	tors:		
1				<u></u>	Y 1 - Rapid Te	est for Hydrophy	tic Vegetat	tion	
		= Total Co	ver		Y 2 - Domina	nce Test if >50%			
					Y 3 - Prevaler	nce Index is ≤ 3.0)		
						logical Adaptation		le sunne	orting
						narks or on a ser			Ji tilig
						c Hydrophytic V)
					Indicators of hydr			gy mus	t be
					present, unless di	sturbed or prob	ematic		
					Hydrophytic				
					Vegetation	Voc Y	No		
					Present?	Yes X	.140		
Remarks: PEM					I				
13.13.13.1									

Profile Description: (Describe to the	depth needed	to document the	indicator or co	nfirm the al	bsence of indicator	
Depth	Matrix		Redox I	Features			
(inches) Co	or: %	S Co	olor: %	Type:	Loc:	Texture:	Remarks:
0-20 10Y	R 2/1 100	0%				Clay Loam	
Type: C=Concentration	n, D=Depletion,	RM=Reduced	Matrix, CS=Covere	d or Coated Sa	nd Grains	Location: F	L=Pore Lining, M=Matrix
Hydric Soil Indicators	: (Applicable to	all LRRs, unle	ss otherwise noted	d.)		Indicators for Problem	atic Hydric Soils
Histosol (A1) Histic Epipedon Black Histic (A3) Hydrogen Sulfid Stratified Layers 2 cm Muck (A10 X Depleted Below	(A2) e (A4) (A5)) Dark Surface (A:		Sandy Gleyed Matr Sandy Redox (S5) Stripped Matrix (S6 Loamy Mucky Mine Loamy Gleyed Matr Depleted Matrix (F3 Redox Dark Surface	ix (S4) eral (F1) rix (F2) 3) e (F6)		Coast Prairie Redo Dark Surface (S7) Iron-Manganese N Very Shallow Dark Other (Explain in F	oc (A16) Masses (F12) Surface (TF12)
Thick Dark Surfa			Depleted Dark Surf Redox Depressions			Indicators of hydrophyt wetland hydrology mus disturbed or problemat	st be present, unless
Restrictive Layer (if p Type: None Depth (inches): Remarks:	resent): NA					Hydric Soil Present?	Yes <u>X</u> No
HYDROLOGY Wetland Hydrology I Primary Indicators (m Surface Water (A High Water Table X Saturation (A3) Water Marks (B1 Sediment Deposit Drift Deposits (B3 Algal Mat or Crus Iron Deposits (B5 Inundation Visible Sparsely Vegetated	inimum of one r 1) (A2) ts (B2) t (B4)) on Aerial Imagery (——————————————————————————————————————	k all that apply) Water-Stained L Aquatic Fauna (I True Aquatic Pla Hydrogen Sulfid Oxidized Rhizosph Presence of Red Recent Iron Red Thin Muck Surfa Gauge or Well D Other (Explain in	B13) ants (B14) e Odor (C1) heres on Living Roluced Iron (C4) huction in Tilled hice (C7) hotal (D9)		Surface So Drainage P Dry-Seasor Crayfish Bu Saturation V	isible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2)
Field Observations: Surface Water Present Water Table Present? Saturation Present? (includes capillary frid Describe Recorded D	Yes YesX nge)	No X No X No X No	Depth (inches): Depth (inches):	NA NA 5 , previous inspe		Hydrology Present?	Yes <u>X</u> No
Remarks:			·	<u> </u>			

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC Investigator(s): P. Swartzinski; R. Walker		City/Cour		S	ty tate: <u>SD</u> nship, Range:		oling Date		3/2018 46
Landform (hillslope, terrace, etc.): depression depression Slope (%): <5% Lat:	on		Local re	lief (conc	ave, convex, none	Date	pe um: <u>NA</u> I	D83	
Soil Map Unit Name: Are climatic/hydrologic conditions on the site ty Are Vegetation No Soil No or Hydro Are Vegetation No Soil No or Hydro SUMMARY OF FINDINGS – Attach site	ology No ology No	significantly naturally pro	disturb oblema	ed? Ai tic? (if	No (if re "Normal Circum" needed, explain in	n Remarks.)	emarks.) t? Yes	X	No
	No					, po : taile :		., c.c.	
		X		s the Sar	npled Area				
_		X	١ ا	within a	Wetland?	YesI	10 X		
Remarks: UPLAND									
VEGETATION – Use scientific names of	•				_				
<u>Tree Stratum</u> (Plot size: <u>30</u>)	Absolute % Cover	DominantS pecies?	Indica ⁻ Status			est Worksheet: minant Species FACW, or FAC:		0	(A)
1					Total Number	of Dominant		1	(B)
Sapling/Shrub Stratum (Plot size: 15)	_ = Total Co	ver		Species Across Percent of Dor That Are OBL,	minant Species		0.0%	(A/B)
1					Prevalence Inc	dex Worksheet:			
		_ = Total Co	ver		Total % Cover	of:	Multi	iply by:	
Herb Stratum (Plot size: 5					OBL species	0%	x 1	0.0%	<u> </u>
1. Bromus inermis	85%	Υ	FACI		FACW species	0%	x 2	0.0%	
2. Phleum pratense	20%	N	FACI		FAC species	0%	x 3	0.0%	
3. <u>Helianthus maximiliani</u>	5%	N	UPL	-	FACU species	105%	x 4	420.0%	
4					UPL species	5%	x 5	25.0%	
	110%	= Total Co	ver		Column Totals	: 110.0%	(A)	445%	(B)
Woody Vine Stratum (Plot size: 15	_)				Prevalence l	Index = B/A =		4.05	` '
1.					Hydrophytic V	egetation Indic	ators:		
		= Total Co	ver		N 1 - Rapid T	est for Hydroph	ytic Vege	etation	
					N 2 - Domina	ance Test if >509	%		
					N 3 - Prevale	ence Index is ≤ 3	.0		
					data in Re		eperate s legetation and hydr	heet) on (Explair	n)
					Hydrophytic Vegetation Present?	Yes	_No	x	
Remarks: UPLAND									

Donth NA	atris.			D ~ ~ ~ ~ ~							
Depth Mainches) Color:	atrix %		Color:	Redox F	eatures	Loc	Tex	cture:	F	Remarks	:
0-20 10YR 3/2			COIOT:		Type:	<u>Loc:</u>		/ Loam			
1011137		,,0									
pe: C=Concentration, D	=Depletion, I	RM=Redu	uced Matrix	, CS=Covere	d or Coated Sa	nd Grains		Location:	PL=Pore Li	ning, M=	Matrix
ydric Soil Indicators: (A	pplicable to a	all LRRs,	unless othe	rwise noted	l.)		Indicators	for Probler	natic Hydr	ic Soils	
Histosol (A1)		_		Gleyed Matri	ix (S4)			Prairie Red			
Histic Epipedon (A2)		_		Redox (S5)				Surface (S7)			
Black Histic (A3) Hydrogen Sulfide (A4	1)	_		d Matrix (S6)				Manganese			
Stratified Layers (A5)			-	Mucky Mine Gleyed Matr				Shallow Dar [·] (Explain in		1712)	
2 cm Muck (A10)		_		ed Matrix (F3				(Explain in	Kemarksj		
Depleted Below Dark	Surface (A1	.1)		Dark Surface							
Thick Dark Surface (A	A12)	_	Deplete	ed Dark Surfa	ace (F7)		Indicators	of hydroph	vtic vegeta	tion and	
Sandy Mucky Minera	al (S1)	=	Redox I	Depressions	(F8)		wetland hy	ydrology mi or problema	ust be pres		SS
estrictive Layer (if prese	ent):										
Type: None			_				Hydric Soi	Present?	Yes	No	х
Depth (inches): NA	١		_				, 501				
etland Hydrology Indic imary Indicators (minim Surface Water (A1)	num of one re	equired; (Wat	er-Stained L			Se		oil Cracks (B6)	equired)
/etland Hydrology Indic rimary Indicators (minim Surface Water (A1) High Water Table (A2	num of one re	equired; (Wat Aqu	er-Stained La atic Fauna (E	313)		Se —	Surface Son Drainage	oil Cracks (Pattern (B	B6) 10)	equired)
	num of one re	equired; (Wat Aqu True	er-Stained L	313) nts (B14)		Se 	Surface So Drainage Dry-Seaso	oil Cracks (B6) 10) able (C2)	required,
Vetland Hydrology Indic rimary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3)	num of one re	equired; (Wat Aqu True Hyd	er-Stained Latic Fauna (E Aquatic Pla rogen Sulfide	313) nts (B14)	pots (C3)	Se	Surface Some Drainage Dry-Seaso Crayfish E	oil Cracks (Pattern (Ba on Water T	B6) 10) able (C2) 3)	
Vetland Hydrology Indic rimary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3)	oum of one re	equired; (Wat Aqu True Hyd Oxid	er-Stained Latic Fauna (E Aquatic Pla rogen Sulfida ized Rhizospha ence of Red	313) nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4)		Se	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Surface Surf	oil Cracks (Pattern (B: on Water T Burrows (CB Visible on A or Stressed	B6) 10) able (C2) 3) erial Imag Plants (D	ery (C9)
Vetland Hydrology Indic rimary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4	oum of one re	equired; (Wat Aqu True Hyd Oxid Pres	er-Stained Latic Fauna (E Aquatic Pla rogen Sulfide ized Rhizosph sence of Red ent Iron Red	313) nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled		Se	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (Pattern (B: on Water T Burrows (Ci Visible on A or Stressed hic Positio	B6) 10) able (C2) 3) erial Imag Plants (D n (D2)	ery (C9)
Vetland Hydrology Indic rimary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5)	oum of one re 2)		Wat Aqu True Hyd Oxid Pres Rece	er-Stained Latic Fauna (E Aquatic Pla rogen Sulfide ized Rhizosphe sence of Red ent Iron Red Muck Surfa	a13) nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7)		Se	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (Pattern (B: on Water T Burrows (CB Visible on A or Stressed	B6) 10) able (C2) 3) erial Imag Plants (D n (D2)	ery (C9)
Vetland Hydrology Indic rimary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4	num of one re) 2) I) rial Imagery (E	37)	Mate Aque Aque Aque Aque Aque Aque Aque Aqu	er-Stained Latic Fauna (E Aquatic Pla rogen Sulfide ized Rhizosph sence of Red ent Iron Red	nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9)		Se	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (Pattern (B: on Water T Burrows (Ci Visible on A or Stressed hic Positio	B6) 10) able (C2) 3) erial Imag Plants (D n (D2)	ery (C9)
Vetland Hydrology Indic rimary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Ae	num of one re) 2) I) rial Imagery (E	37)	Mate Aque Aque Aque Aque Aque Aque Aque Aqu	er-Stained Latic Fauna (E e Aquatic Pla rogen Sulfide ized Rhizosphe ence of Red ent Iron Red I Muck Surfa ge or Well D	nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9)		Se	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (Pattern (B: on Water T Burrows (Ci Visible on A or Stressed hic Positio	B6) 10) able (C2) 3) erial Imag Plants (D n (D2)	ery (C9)
retland Hydrology Indicinary Indicators (minimary Indicators (minimary Indicators (minimary Indicators) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Aese Sparsely Vegetated Concessions:	num of one re) 2) 4) Prial Imagery (E	37) 38)	Mate Aque Aque Aque Aque Aque Apres	er-Stained L atic Fauna (E Aquatic Pla rogen Sulfide ized Rhizosph sence of Red ent Iron Red Muck Surfa ge or Well D er (Explain in	a13) nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9) n Remarks)		Se	Surface Some Drainage Dry-Season Crayfish E Saturation Stunted of Geomorp	oil Cracks (Pattern (B: on Water T Burrows (Ci Visible on A or Stressed hic Positio	B6) 10) able (C2) 3) erial Imag Plants (D n (D2)	ery (C9)
retland Hydrology Indicinary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Ae Sparsely Vegetated Conducted	num of one re) 2) I) Prial Imagery (Ecave Surface (E	37) 38) No	Mate Aqu	er-Stained Latic Fauna (E e Aquatic Pla rogen Sulfide ized Rhizosphe ence of Redent Iron Rede I Muck Surfa ge or Well Der (Explain in	nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9) n Remarks)	Soils (C6)		Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp FAC-Neut	oil Cracks (Pattern (B: On Water T Burrows (Ci Visible on A or Stressed hic Position ral Test (Di	B6) 10) able (C2) 3) erial Imag Plants (D n (D2) 5)	ery (C9)
Vetland Hydrology Indic rimary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Ae Sparsely Vegetated Cond eld Observations: urface Water Present?	num of one re) 2) rial Imagery (E cave Surface (E Yes Yes	37) 38) No _ No	Wat Aqu Aqu True Hyd Oxid Pres Recc Thin Gau Othe X Dep X Dep	er-Stained Latic Fauna (Ee Aquatic Pla rogen Sulfide ized Rhizosphorence of Redient Iron Redia Muck Surfage or Well Der (Explain in Explain in	nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9) n Remarks)	Soils (C6)	Se 	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp FAC-Neut	oil Cracks (Pattern (B: on Water T Burrows (Ci Visible on A or Stressed hic Positio	B6) 10) able (C2) 3) erial Imag Plants (D n (D2) 5)	ery (C9)
Vetland Hydrology Indic rimary Indicators (minim Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Ae	yes Yes Yes	37) 38) No No	X Dep X Dep X Dep	er-Stained Latic Fauna (E e Aquatic Pla rogen Sulfide ized Rhizospherence of Red ent Iron Rede Muck Surfa ge or Well Der (Explain in th (inches): th (inches):	nts (B14) e Odor (C1) eres on Living Ro uced Iron (C4) uction in Tilled ce (C7) ata (D9) n Remarks) NA NA NA NA	Soils (C6)	d Hydrology	Surface So Drainage Dry-Seaso Crayfish E Saturation Stunted o Geomorp FAC-Neut	oil Cracks (Pattern (B: On Water T Burrows (Ci Visible on A or Stressed hic Position ral Test (Di	B6) 10) able (C2) 3) erial Imag Plants (D n (D2) 5)	ery (C9)

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC Investigator(s): Paul Swartzinski Landform (hillslope, terrace, etc.): depressic Slope (%): <5% Lat: Soil Map Unit Name: Are climatic/hydrologic conditions on the site ty Are Vegetation No , Soil No , or Hydro Are Vegetation No , Soil No , or Hydro SUMMARY OF FINDINGS — Attach site Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes Wetland Hydrology Present? Yes Remarks:	pical for this ology No ology No map show	time of year? significantly naturally pro ing samplir	Sect Local rel Long: Yes disturbe oblemat	Stion, Town lief (conciling X ed? Artic? (if nt locat	Asate: SD Inship, Range: Inship, Ra	Sampl Convex Datur VI classification: o, explain in Ren tances" present	m: NAD83 narks.) Yes X eautres, etc.	
VEGETATION – Use scientific names of Tree Stratum (Plot size: 30ft)	plants Absolute % Cover	DominantS pecies?	Indicat Status		Dominance Tes			
1. Sapling/Shrub Stratum (Plot size: 15ft)	= Total Cov	ver		That Are OBL, F Total Number of Species Across Percent of Dom That Are OBL, F	of Dominant All Strata: ninant Species	2 2 100.0%	(A) (B) (A/B)
1. Herb Stratum (Plot size: 5ft) 1. Phalaris arundinacea 2. Verbena hastata 3. Rumex crispus 4.	55% 25% 15%	= Total Cov	FACW FACW	V	Prevalence Ind Total % Cover of OBL species FACW species FAC species FACU species UPL species		Multiply by: x 1	% % 6
Woody Vine Stratum (Plot size: 15ft 1.	95%	= Total Cov			N 1 - Rapid Te Y 2 - Domina Y 3 - Prevaler N 4 - Morpho data in Ren	egetation Indicatest for Hydrophynce Test if >50% nce Index is ≤ 3.0 logical Adaptationarks or on a sepon complete the Hydrophytic Veic soil and wetland	tic Vegetation ons (Provide suberate sheet) egetation (Expland hydrology m	pporting
Remarks: PEM					Hydrophytic Vegetation Present?	Yes X	No	

Profile Description: (Desc	ribe to the	depth n	eeded to	document the i	indicator or co	nfirm the a	bsence of indicator	
Depth Ma	trix			Redox F	Features			
(inches) Color:	9	6	Colo	r: %	Type:	Loc:	Texture:	Remarks:
0-20 10YR 2/1	10	0%					Clay Loam	
Type: C=Concentration, D:	Depletion,	RM=Red	duced M	atrix, CS=Covere	d or Coated Sa	nd Grains	Location:	PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (Ap	plicable to	all LRRs	. unless	otherwise noted	I.)		Indicators for Probler	matic Hydric Soils
Histosol (A1)				ndy Gleyed Matri			Coast Prairie Red	•
Histic Epipedon (A2)			Sar	ndy Redox (S5)			Dark Surface (S7))
Black Histic (A3)			Stri	ipped Matrix (S6)		Iron-Manganese	Masses (F12)
Hydrogen Sulfide (A4)		Loa	my Mucky Mine	eral (F1)		Very Shallow Dar	k Surface (TF12)
Stratified Layers (A5)				my Gleyed Matr			Other (Explain in	Remarks)
2 cm Muck (A10)				pleted Matrix (F3				
X Depleted Below Dark		11)		dox Dark Surface				
Thick Dark Surface (ASandy Mucky Minera	-			pleted Dark Surfa dox Depressions			Indicators of hydroph wetland hydrology mu disturbed or problema	ust be present, unless
Restrictive Layer (if prese	nt):							
Type: None							Hydric Soil Present?	Yes X No
Depth (inches): NA							•	
Remarks:						·		
HYDROLOGY								
Wetland Hydrology Indica	itors							
Primary Indicators (minim	um of one	required	; check a	ll that apply)			Secondary Inc	dicators (2 or more required)
Surface Water (A1)			-	Water-Stained L	· ,			oil Cracks (B6)
High Water Table (A2)				Aquatic Fauna (I			_	Pattern (B10)
Saturation (A3)				True Aquatic Pla				on Water Table (C2)
Water Marks (B1)	١١		-	Hydrogen Sulfid Oxidized Rhizosph	` '	oots (C3)		Burrows (C8) Visible on Aerial Imagery (C9)
Sediment Deposits (B2 Drift Deposits (B3)	<u>2)</u>			Presence of Red		ots (C3)		or Stressed Plants (D1)
X Algal Mat or Crust (B4)			Recent Iron Red	` '	Soils (C6)		hic Position (D2)
Iron Deposits (B5)	,			Thin Muck Surfa		30113 (00)	X FAC-Neut	
X Inundation Visible on Ae	rial Imagery	(B7)		Gauge or Well D				(- ,
Sparsely Vegetated Conc	ave Surface	(B8)		Other (Explain ir				
Field Observations:	W-		V	Denth (t. 1.)	NIA.			
Surface Water Present?	Yes			Depth (inches):	NA			
Water Table Present?	Yes			Depth (inches):	NA	Wetland	d Hydrology Present?	Yes X No
Saturation Present? (includes capillary fringe)	Yes			Depth (inches):	NA			
Describe Recorded Data (s	tream gua	ge, moni	toring we	ell, aerial photos	, previous insp	ections), if a	available:	
Remarks:								

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC		City/Cour			State: SD		npling Dat		29/2018 147
Investigator(s): Paul Swartzinski Landform (hillslope, terrace, etc.): depression	on		Local rel	lief (cor	wnship, Range: ncave, convex, none			DOS	
Slope (%): <5% Lat:			Long:				tum: <u>NA</u>	D83	
Soil Map Unit Name:	mical for this	time of week) Vos	V		IWI classificatio			
Are climatic/hydrologic conditions on the site ty Are Vegetation No , Soil No , or Hydr			_			no, explain in R			No
Are Vegetation No , Soil No , or Hydr					(if needed, explain i		111: 163		
								_	
SUMMARY OF FINDINGS – Attach site	-	ing sampli	ng poi	nt loca	ations, transects	s, important	teautre	s, etc.	
Hydrophytic Vegetation Present? Yes _	No	X							
Hydric Soil Present? Yes	No	X			ampled Area	Yes	No Y		
Wetland Hydrology Present? Yes	No	X	,	within a	a Wetland?	163	NO X		
Remarks: UPLAND									
VEGETATION – Use scientific names of	•								
Tree Stratum (Plot size: 30ft)	Absolute % Cover	DominantS pecies?	Indicat Status		Dominance Te	est Worksheet:			
, interest <u>soit</u>	% Cover	pecies:	Status		Number of Do	minant Species			
					That Are OBL,	FACW, or FAC:		0	_ (A)
1					Total Number			1	(D)
		_ = Total Co	ver		Species Across			1	_ (B)
Sapling/Shrub Stratum (Plot size: 15ft)					minant Species FACW, or FAC:		0.0%	_ (A/B)
1					Prevalence In	dex Worksheet	:		
		= Total Co	ver		Total % Cover			iply by:	
Herb Stratum (Plot size: 5ft)		_							
1. Zea mays	15%	Υ	UPL		OBL species	0%	_ x1	0.0%	
,	1370	•	01 2	-	FACW species	0%	x 2	0.0%	
2					FAC species	0%	x 3	0.0%	
	15%	_ = Total Co	ver		FACU species	0%	_ x 4	0.0%	
Woody Vine Stratum (Plot size: 15ft	_)				UPL species	15%	x 5	75.0%	
					Column Totals	: 15.0%	(A)	75%	(B)
1					Prevalence	Index = B/A =		5.00	
		= Total Co	ver			egetation Indi	cators:		
					N 1 - Ranid 1	Test for Hydrop	hytic Veg	etation	
						<i>'</i> '	, ,	Ctation	
						ance Test if >50			
						ence Index is ≤ 3			
					data in Re N Problema		eperate s Vegetations land hyd	sheet) on (Explai rology mu	in)
					present, unless o	iisturbed or pro	טוזפווופנוכ		
					Hydrophytic Vegetation Present?	Yes	No	<u>x</u>	
Remarks: UPLAND CORNFIELD									

Popt													
O-20 10YR 3/1 100% Clay Loarn Location: PL=Pore Lining, M=Malarix Malarix	(:l)									vturo:		Romarko	
### Company of the co				Colo	<u>r:</u> _	%	Iype	Loc:	<u> </u>			NCIII ai Ka	·•
ydric Soil Indicators (Applicable to all LRRs, unless otherwise noted.) Histoca (A1)	0-20 10YR 3/1	. 100)%						Cla	y Loam			
Histosol (A1) Sandy Gleyed Matrix (\$4) Coast Prairie Redoc (A15) Histic Epipedon (A2) Sandy Redox (\$5) Dark Surface (\$7) Histic Epipedon (A2) Stripped Matrix (\$6) Joark Surface (\$7) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Very Shallow Dark Surface (\$712) Thick Dark Surface (A12) Depleted Matrix (F2) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (\$1) Redox Depressions (\$78) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. **Strictive Layer (if present):** Type: None Depth (inches): NA **marks:** **PROLOGY** **etland Hydrology Indicators** **imary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Leaves (\$89) Agratic Part (\$1) Water-Stained Leaves (\$89) Surface Water (A1) Aquatic Plants (\$18.4) Depth (\$10 Aquatic Plants (\$18.4) Dry-Season Water Table (\$2) Saturation (A3) True Aquatic Plants (\$18.4) Dry-Season Water Table (\$2) Drift Deposits (\$3) Presence of Reduced Iron (\$4) Sutrator Visible on Aerial Imagery (\$7) Sediment Deposits (\$81) Drift Deposits (\$81) Drift Deposits (\$81) Thin Muck Surface (\$71) Sparsely Vegetated Concave Surface (\$88) Other (Explain in Remarks) **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA *	pe: C=Concentration, D:	=Depletion,	RM=Rec	duced Ma	atrix, CS=Co	overed	or Coated S	Sand Grains		Location:	PL=Pore L	ining, M=	Matrix
Histic Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) Black Histic (A3) Stripped Matrix (S6) Incom Manganese Masses (F12) Hydrogen Sulfidie (A4) Loamy Mucky Mineral (F1) Very Shallow Dark Surface (TF12) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Redox Depressions (F8) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. **Strictive Layer (If present):** Type: Non Depth (inches): NA	ydric Soil Indicators: (Ap	plicable to	all LRRs,	, unless o	otherwise	noted.))		Indicators	for Proble	matic Hydr	ic Soils	
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Redox Depressions (F8) Redox Deposits (F8) Redox Deposi	Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4 Stratified Layers (A5) 2 cm Muck (A10)			San Stri Loa Loa Deg	dy Redox (pped Matr my Mucky my Gleyed bleted Mat	(S5) fix (S6) Minera I Matrix rix (F3)	al (F1) < (F2)		Dark Iron- Very	Surface (S7 Manganese Shallow Da) Masses (F rk Surface (
Type: None Depth (inches): NA PROLOGY Petland Hydrology Indicators rimary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Mater Table (A2) Mater Marks (B1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Drift Deposits (B2) Drift Deposits (B2) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B3) Sparsely Vegetated Concave Surface (B8) Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA	Thick Dark Surface (A	12)		Dep	oleted Dark	c Surfac	ce (F7)		wetland h	ydrology m	ust be pres		
Popeth (inches): NA emarks: Mydric Soil Present? Yes No X		nt):											
POROLOGY Valed Va				_					Hydric Soi	l Present?	Yes	No	X
Vetland Hydrology Indicators rimary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Drainage Pattern (B10) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Iron Deposits (B5) Sparsely Vegetated Concave Surface (B8) Vater Marks (B8) Dreinage Pattern (B10) Algal Observations: Urface Water Present? Ves No X Depth (inches): Vater Table (A2) Secondary Indicators (2 or more required) Secondary Indicators (2 or more required) Secondary Indicators (2 or more required) Surface Soil Cracks (B6) Drainage Pattern (B10) Saturation Visible on Aerial Imagery (C9) Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) Vater Table Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X No X Depth (inches): NA No Recont Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) FAC-Neutral Test (D5) No X Wetland Hydrology Present? Yes No X No X Depth (inches): NA No Recont Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) FAC-Neutral Test (D5) No X Wetland Hydrology Present? Yes No X No X Depth (inches): NA No No No No No No No No No													
Surface Water (A1)	(DBOLOGY												
High Water Table (A2) Saturation (A3) Aquatic Fauna (B13) True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: urface Water Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Stunted or Stunte		itors											
Saturation (A3)	etland Hydrology Indica		equired;	; check a	Il that appl	y)			Se	econdary Inc	dicators (2	or more	required
Water Marks (B1)	Tetland Hydrology Indication imary Indicators (minim Surface Water (A1)	um of one r	equired;				aves (B9)		Se	Surface S	oil Cracks (B6)	required
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Pethon Inches): Inface Water Present? Yes No X Depth (inches): Inturation Present? Yes No X Depth (inches): Inturation Present? Yes No X Depth (inches): NA	etland Hydrology Indica imary Indicators (minim Surface Water (A1) High Water Table (A2)	um of one r	equired;		Water-Stai Aquatic Fa	ned Le una (B1	13)		Se	Surface S Drainage	oil Cracks (Pattern (B	B6) 10)	
Drift Deposits (B3)	Yetland Hydrology Indica rimary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3)	um of one r	equired;		Water-Stai Aquatic Fa True Aqua	ned Le una (B1 tic Plan	13) ts (B14)		Se	Surface S Drainage Dry-Seaso	oil Cracks (Pattern (B on Water T	B6) 10) able (C2)	
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Peld Observations: Irrace Water Present? Yes No X Depth (inches): NA Vater Table Present? Yes No X Depth (inches): NA Includes capillary fringe) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) FAC-Neutral Test (D5) FAC-Neutral Test (D	Vetland Hydrology Indication of the Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	um of one r	equired;		Water-Stai Aquatic Fa True Aqua Hydrogen	ined Le una (B1 tic Plan Sulfide	13) ts (B14) Odor (C1)	Roots (C3)	Se	Surface S Drainage Dry-Sease Crayfish I	oil Cracks (Pattern (B on Water T Burrows (C	B6) 10) able (C2) 8)	
Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Peld Observations: Ourface Water Present? Yes No X Depth (inches): NA Vater Table Present? Yes No X Depth (inches): NA Output (Explain in Remarks) Wetland Hydrology Present? Yes No X Depth (inches): NA Maturation Present? Yes No X Depth (inches): NA Includes capillary fringe)	Vetland Hydrology Indica rimary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2	um of one r	equired;		Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized Rh	ined Le una (B1 tic Plan Sulfide izosphei	13) ts (B14) Odor (C1) res on Living		Se	Surface S Drainage Dry-Sease Crayfish I Saturation	oil Cracks (Pattern (B on Water T Burrows (C Visible on A	B6) 10) able (C2) 8) Aerial Imag	gery (C9)
urface Water Present? Yes No X Depth (inches): NA /ater Table Present? Yes No X Depth (inches): NA aturation Present? Yes No X Depth (inches): NA ncludes capillary fringe) NO X Depth (inches): NA NO X Depth (inches): NA	Vetland Hydrology Indicarimary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	um of one ro	equired;		Water-Stai Aquatic Fa True Aqua Hydrogen : Oxidized Rh Presence c	ned Leauna (B1 tic Plan Sulfide izospher	13) ts (B14) Odor (C1) res on Living ced Iron (C4	1)	Se	Surface S Drainage Dry-Sease Crayfish I Saturation Stunted c	oil Cracks (Pattern (B on Water T Burrows (C Visible on A or Stressed	B6) 10) able (C2) 8) Aerial Imag Plants (E	gery (C9)
urface Water Present? Yes No X Depth (inches): NA /ater Table Present? Yes No X Depth (inches): NA aturation Present? Yes No X Depth (inches): NA ncludes capillary fringe) No X Depth (inches): NA No X Depth (inches): NA	Vetland Hydrology Indicarimary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Ae	um of one ro	B7)		Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence c Recent Iro Thin Muck Gauge or V	ined Lea una (B1 tic Plan Sulfide izosphei of Redu n Redu Surface Vell Da	ts (B14) Odor (C1) res on Living ced Iron (C4 ction in Tille e (C7) ta (D9)	1)	Se	Surface S Drainage Dry-Sease Crayfish I Saturation Stunted of	oil Cracks (Pattern (B on Water T Burrows (C Visible on A or Stressed whic Positio	B6) 10) Table (C2) 8) Aerial Imag Plants (E n (D2)	gery (C9)
Vater Table Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA holudes capillary fringe)	Vetland Hydrology Indicationary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Ae	um of one ro	B7)		Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence c Recent Iro Thin Muck Gauge or V	ined Lea una (B1 tic Plan Sulfide izosphei of Redu n Redu Surface Vell Da	ts (B14) Odor (C1) res on Living ced Iron (C4 ction in Tille e (C7) ta (D9)	1)	Se	Surface S Drainage Dry-Sease Crayfish I Saturation Stunted of	oil Cracks (Pattern (B on Water T Burrows (C Visible on A or Stressed whic Positio	B6) 10) Table (C2) 8) Aerial Imag Plants (E n (D2)	gery (C9)
nturation Present? Yes No X Depth (inches): NA	retland Hydrology Indicationary Indicators (minimary Indicators (minimary Indicators (minimary Indicators) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Aeron Sparsely Vegetated Concord	um of one ro	B7) B8)		Water-Stai Aquatic Fa True Aquat Hydrogen Oxidized Rh Presence c Recent Iron Thin Muck Gauge or V Other (Exp	ned Le. una (B1 tic Plan Sulfide izosphei of Redu n Redu Surfaco Well Da lain in	ts (B14) Odor (C1) res on Living ced Iron (Ca ction in Tille e (C7) ta (D9) Remarks)	1)	Se	Surface S Drainage Dry-Sease Crayfish I Saturation Stunted of	oil Cracks (Pattern (B on Water T Burrows (C Visible on A or Stressed whic Positio	B6) 10) Table (C2) 8) Aerial Imag Plants (E n (D2)	gery (C9)
ncludes capillary fringe)	Vetland Hydrology Indicationary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Aerosparsely Vegetated Conconded	um of one ro 2) rial Imagery (I ave Surface (I	B7) B8)	X	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence c Recent Iron Thin Muck Gauge or V Other (Exp	ned Lea una (B1 tic Plan Sulfide izospher of Redu n Redu Surface Vell Da llain in I	ts (B14) Odor (C1) res on Living ced Iron (C4 ction in Tille e (C7) ta (D9) Remarks)	1)	Se	Surface S Drainage Dry-Sease Crayfish I Saturation Stunted of	oil Cracks (Pattern (B on Water T Burrows (C Visible on A or Stressed whic Positio	B6) 10) Table (C2) 8) Aerial Imag Plants (E n (D2)	gery (C9)
	rimary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Aer Sparsely Vegetated Conce	um of one ro	B7) B8) No No _		Water-Stai Aquatic Fa True Aquat Hydrogen Oxidized Rh Presence c Recent Iron Thin Muck Gauge or V Other (Exp	ned Le. una (B1 tic Plan Sulfide izosphei of Redu n Redu Surface Well Da ilain in l hes):	ts (B14) Odor (C1) res on Living ced Iron (C4 ction in Tille e (C7) ta (D9) Remarks)	a) ed Soils (C6)	-	Surface S Drainage Dry-Sease Crayfish I Saturation Stunted of Geomorp FAC-Neur	oil Cracks (Pattern (B pon Water T Burrows (C Visible on A por Stressed whic Positio tral Test (D	B6) 10) fable (C2) 8) Nerial Imag Plants (E n (D2) 5)	gery (C9) 01)

Hydric Soil Present? Yes	pical for this blogy No blogy No map show X No	time of year? significantly naturally pro	Section Sectin Section Section Section Section Section Section Section Section	Station, Town lief (conca X ed? Are tic? (if interest)	ate: SD nship, Range: nve, convex, none): NW No (if no, e "Normal Circumsta needed, explain in R nons, transects, in	Convex Datur I classification: , explain in Renances" presenta	narks.) Yes autres, e	DP14	18
VEGETATION – Use scientific names of	nlants								
Tree Stratum (Plot size: 30ft)	Absolute % Cover	DominantS pecies?	Indica Status		Dominance Test Number of Domin That Are OBL, FA	nant Species CW, or FAC:	1		(A)
	-	= Total Co	ver		Species Across Al		1		(B)
Sapling/Shrub Stratum (Plot size: 15ft)	_			Percent of Domir That Are OBL, FA	•	100.0	0%	(A/B)
1					Prevalence Index	www.			
		= Total Co	ver		Total % Cover of:		Multiply	by:	
Herb Stratum (Plot size: 5ft)					OBL species	0%		0.0%	
1. Phalaris arundinacea	90%	Υ	FACV	V	FACW species	100%	x 2 20	00.0%	_
2. Spartina pectinata	10%	N	FACV	<u>V</u>	FAC species	0%	x 3 0	0.0%	
3					FACU species	0%	x 4 (0.0%	
	100%	_ = Total Co	ver		UPL species	0%	x 5 (0.0%	
Woody Vine Stratum (Plot size: 15ft)				Column Totals:	100.0%	(A) 2	.00%	(B)
					Prevalence Ind	lex = B/A =	2.00)	_
1	-	= Total Co	ver		Hydrophytic Veg	etation Indicat	ors:		
		_			N 1 - Rapid Tes	t for Hydrophy	tic Vegetat	ion	
					Y 2 - Dominano	ce Test if >50%			
					Y 3 - Prevalenc	e Index is ≤ 3.0			
					N 4 - Morpholo data in Rema N Problematic I Indicators of hydric	irks or on a sep Hydrophytic Ve	erate shee getation (E	t) Explain)
					present, unless dist			_b y ilius	
					Hydrophytic Vegetation Present?	Yes <u>X</u>	No	_	
Remarks: PEM									

Profile Descr	iption: (Describe t	the depth ne	eeded to doc	ument the in	dicator or co	nfirm the a	bsence of indicator	
Depth	Matrix			Redox Fe	eatures			
(inches)	Color:		Color:	%	Type:	Loc:	Texture:	Remarks:
0-20	10YR 2/1	100%					Clay Loam	
Type: C=Cond	centration, D=Depl	etion, RM=Rec	duced Matrix,	CS=Covered	or Coated Sa	nd Grains	Location: F	L=Pore Lining, M=Matrix
Hydric Soil In	dicators: (Applical	ole to all LRRs	, unless other	wise noted.			Indicators for Problem	atic Hydric Soils
Histosol Histic Ep Black His Hydroge Stratified 2 cm Mu X Depleted Thick Da	(A1) pipedon (A2)		Sandy G Sandy R Stripped Loamy N Loamy G Deplete Redox D Deplete	leyed Matrix edox (S5) I Matrix (S6) Mucky Minera Gleyed Matrix d Matrix (F3) ark Surface (d Dark Surface epressions (I	(S4) al (F1) c (F2) F6) ce (F7)		Coast Prairie Redo Dark Surface (S7) Iron-Manganese N Very Shallow Dark Other (Explain in F Indicators of hydrophytwetland hydrology mus disturbed or problemat	Ac (A16) Masses (F12) Surface (TF12) Remarks) tic vegetation and st be present, unless
Restrictive La Type: N Depth (in Remarks:			_				Hydric Soil Present?	Yes <u>X</u> No
Primary Indic X Surface V X High Wat X Saturatio Water M Sediment Drift Dep Algal Mat Iron Depc Inundation	rology Indicators ators (minimum of Vater (A1) ter Table (A2) to (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4)	agery (B7)	Aqua Aqua True Hydr Oxidi Press Rece Thin	er-Stained Le utic Fauna (B. Aquatic Plan ogen Sulfide zed Rhizosphe ence of Redu	ts (B14) Odor (C1) res on Living Ro ced Iron (C4) ction in Tilled e (C7) ta (D9)		Surface So Drainage P Dry-Seasor Crayfish Bu Saturation V Stunted or	'isible on Aerial Imagery (C9) Stressed Plants (D1) ic Position (D2)
Field Observa Surface Water Water Table I Saturation Pr (includes cap Describe Reco	er Present? Yes Present? Yes esent? Yes	X No X No X No guage, monit	Dept Dept	h (inches): h (inches): h (inches): erial photos,	1 9 0 previous inspo		I Hydrology Present? available:	Yes <u>X</u> No
Remarks:								

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC Investigator(s): Paul Swartzinski Landform (hillslope, terrace, etc.): depression	on			State: SD Township, Ran		Sar	mpling Da mpling Po , ,	-	0/2018 .49
Slope (%): <5% Lat:	unical for this			v No	NW	Da I classificati , explain in I			
Are Vegetation No Soil No or Hydro SUMMARY OF FINDINGS – Attach site	ology No ology No	significantly naturally pro	disturbed? oblematic?	Are "Norma (if needed, e	Circumsta explain in R	ances" prese Remarks.)	ent? Yes	X	No
	No		ig point i	ocations, tra	ilisects, i	inportant	leautie	:s, etc.	
		X	Is th	e Sampled Are	a				
_				in a Wetland?		Yes	No X	· ·	
Remarks: UPLAND	No_	X							
VEGETATION – Use scientific names of	plants								
<u>Tree Stratum</u> (Plot size: <u>30ft</u>)	Absolute % Cover	DominantS pecies?	Indicator Status	Numb	er of Domi	Worksheet nant Specie CW, or FAC:	S	0	(A)
1						Dominant		1	(D)
Sapling/Shrub Stratum (Plot size: 15ft)	_ = Total Cov	ver	Percer		II Strata: nant Species .CW, or FAC:		0.0%	(B) (A/B)
1				Preval	ence Inde	x Workshee	t:		
		_ = Total Cov	ver	Total 9	6 Cover of:	:	Mul	iply by:	
Herb Stratum (Plot size: 5ft)				OBL sp	ecies	0%	x 1	0.0%	<u> </u>
1. Bromus inermis	85%	Υ	FACU	FACW	species	0%	x 2	0.0%	
2. Zea mays	15%	N	UPL	FAC sp	ecies	0%	x 3	0.0%	
3				FACU :	species	85%	x 4	340.0%	
	100%	_ = Total Cov	ver	UPL sp	ecies	15%	x 5	75.0%	
Woody Vine Stratum (Plot size: 15ft	_)			Colum	n Totals:	100.0%	(A)	415%	(B)
				Prev	alence Inc	dex = B/A =		4.15	
1.		= Total Cov	ver	Hydro	phytic Veg	getation Ind	icators:		=
				_N_1-	Rapid Tes	t for Hydrop	ohytic Veg	etation	
				<u>N</u> 2-	Dominan	ce Test if >5	0%		
				<u>N</u> 3-	Prevalenc	e Index is ≤	3.0		
				da <u>N</u> Pro Indicator	ta in Rema oblematic s of hydric	ogical Adapt arks or on a Hydrophytic soil and we curbed or pr	seperate C Vegetati Itland hyd	sheet) on (Explaii rology mu	n)
				Hydro Vegeta Preser	ation	Yes	No	х	
Remarks: UPLAND				1					

Popt													
O-20 10YR 3/1 100% Clay Loarn Location: PL=Pore Lining, M=Malarix Malarix	(:l)									vturo:		Romarko	
### Company of the co				Colo	<u>r:</u> _	%	Iype	Loc:	<u> </u>			NCIII ai Ka	·•
ydric Soil Indicators (Applicable to all LRRs, unless otherwise noted.) Histoca (A1)	0-20 10YR 3/1	. 100)%						Cla	y Loam			
Histosol (A1) Sandy Gleyed Matrix (\$4) Coast Prairie Redoc (A15) Histic Epipedon (A2) Sandy Redox (\$5) Dark Surface (\$7) Histic Epipedon (A2) Stripped Matrix (\$6) Joark Surface (\$7) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Very Shallow Dark Surface (\$712) Thick Dark Surface (A12) Depleted Matrix (F2) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (\$1) Redox Depressions (\$78) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. **Strictive Layer (if present):** Type: None Depth (inches): NA **marks:** **PROLOGY** **etland Hydrology Indicators** **imary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Leaves (\$89) Agratic Part (\$1) Water-Stained Leaves (\$89) Surface Water (A1) Aquatic Plants (\$18.4) Depth (\$10 Aquatic Plants (\$18.4) Dry-Season Water Table (\$2) Saturation (A3) True Aquatic Plants (\$18.4) Dry-Season Water Table (\$2) Drift Deposits (\$3) Presence of Reduced Iron (\$4) Sutrator Visible on Aerial Imagery (\$7) Sediment Deposits (\$81) Drift Deposits (\$81) Drift Deposits (\$81) Thin Muck Surface (\$71) Sparsely Vegetated Concave Surface (\$88) Other (Explain in Remarks) **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA **Wetland Hydrology Present? Yes No X Depth (inches): NA *	pe: C=Concentration, D:	=Depletion,	RM=Rec	duced Ma	atrix, CS=Co	overed	or Coated S	Sand Grains		Location:	PL=Pore L	ining, M=	Matrix
Histic Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) Black Histic (A3) Stripped Matrix (S6) Incom Manganese Masses (F12) Hydrogen Sulfidie (A4) Loamy Mucky Mineral (F1) Very Shallow Dark Surface (TF12) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Redox Depressions (F8) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. **Strictive Layer (If present):** Type: Non Depth (inches): NA	ydric Soil Indicators: (Ap	plicable to	all LRRs,	, unless o	otherwise	noted.))		Indicators	for Proble	matic Hydr	ic Soils	
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Redox Depressions (F8) Redox Deposits (F8) Redox Deposi	Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4 Stratified Layers (A5) 2 cm Muck (A10)			San Stri Loa Loa Deg	dy Redox (pped Matr my Mucky my Gleyed bleted Mat	(S5) fix (S6) Minera I Matrix rix (F3)	al (F1) < (F2)		Dark Iron- Very	Surface (S7 Manganese Shallow Da) Masses (F rk Surface (
Type: None Depth (inches): NA PROLOGY Petland Hydrology Indicators rimary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Mater Table (A2) Mater Marks (B1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Drift Deposits (B2) Drift Deposits (B2) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B3) Sparsely Vegetated Concave Surface (B8) Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA	Thick Dark Surface (A	12)		Dep	oleted Dark	c Surfac	ce (F7)		wetland h	ydrology m	ust be pres		
Popeth (inches): NA emarks: Mydric Soil Present? Yes No X		nt):											
POROLOGY Valed Va				_					Hydric Soi	l Present?	Yes	No	X
Vetland Hydrology Indicators rimary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Drainage Pattern (B10) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Iron Deposits (B5) Sparsely Vegetated Concave Surface (B8) Vater Marks (B8) Dreinage Pattern (B10) Algal Observations: Urface Water Present? Ves No X Depth (inches): Vater Table (A2) Secondary Indicators (2 or more required) Secondary Indicators (2 or more required) Secondary Indicators (2 or more required) Surface Soil Cracks (B6) Drainage Pattern (B10) Saturation Visible on Aerial Imagery (C9) Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) Vater Table Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X No X Depth (inches): NA No Recont Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) FAC-Neutral Test (D5) No X Wetland Hydrology Present? Yes No X No X Depth (inches): NA No Recont Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) FAC-Neutral Test (D5) No X Wetland Hydrology Present? Yes No X No X Depth (inches): NA No No No No No No No No No													
Surface Water (A1)	(DBOLOGY												
High Water Table (A2) Saturation (A3) Aquatic Fauna (B13) True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: urface Water Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Stunted or Stunte		itors											
Saturation (A3)	etland Hydrology Indica		equired;	; check a	Il that appl	y)			Se	econdary Inc	dicators (2	or more	required
Water Marks (B1)	Tetland Hydrology Indication imary Indicators (minim Surface Water (A1)	um of one r	equired;				aves (B9)		Se	Surface S	oil Cracks (B6)	required
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Pethon Inches): Inface Water Present? Yes No X Depth (inches): Inturation Present? Yes No X Depth (inches): Inturation Present? Yes No X Depth (inches): NA	etland Hydrology Indica imary Indicators (minim Surface Water (A1) High Water Table (A2)	um of one r	equired;		Water-Stai Aquatic Fa	ned Le una (B1	13)		Se	Surface S Drainage	oil Cracks (Pattern (B	B6) 10)	
Drift Deposits (B3)	Yetland Hydrology Indica rimary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3)	um of one r	equired;		Water-Stai Aquatic Fa True Aqua	ned Le una (B1 tic Plan	13) ts (B14)		Se	Surface S Drainage Dry-Seaso	oil Cracks (Pattern (B on Water T	B6) 10) able (C2)	
Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Peld Observations: Irrace Water Present? Yes No X Depth (inches): NA Vater Table Present? Yes No X Depth (inches): NA Includes capillary fringe) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) FAC-Neutral Test (D5) FAC-Neutral Test (D	Vetland Hydrology Indication of the Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	um of one r	equired;		Water-Stai Aquatic Fa True Aqua Hydrogen	ined Le una (B1 tic Plan Sulfide	13) ts (B14) Odor (C1)	Roots (C3)	Se	Surface S Drainage Dry-Sease Crayfish I	oil Cracks (Pattern (B on Water T Burrows (C	B6) 10) able (C2) 8)	
Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Peld Observations: Ourface Water Present? Yes No X Depth (inches): NA Vater Table Present? Yes No X Depth (inches): NA Output (Explain in Remarks) Wetland Hydrology Present? Yes No X Depth (inches): NA Maturation Present? Yes No X Depth (inches): NA Includes capillary fringe)	Vetland Hydrology Indica rimary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2	um of one r	equired;		Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized Rh	ined Le una (B1 tic Plan Sulfide izosphei	13) ts (B14) Odor (C1) res on Living		Se	Surface S Drainage Dry-Sease Crayfish I Saturation	oil Cracks (Pattern (B on Water T Burrows (C Visible on A	B6) 10) able (C2) 8) Aerial Imag	gery (C9)
urface Water Present? Yes No X Depth (inches): NA /ater Table Present? Yes No X Depth (inches): NA aturation Present? Yes No X Depth (inches): NA ncludes capillary fringe) NO X Depth (inches): NA NO X Depth (inches): NA	Vetland Hydrology Indicarimary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	um of one ro	equired;		Water-Stai Aquatic Fa True Aqua Hydrogen : Oxidized Rh Presence c	ned Leauna (B1 tic Plan Sulfide izospher	13) ts (B14) Odor (C1) res on Living ced Iron (C4	1)	Se	Surface S Drainage Dry-Sease Crayfish I Saturation Stunted c	oil Cracks (Pattern (B on Water T Burrows (C Visible on A or Stressed	B6) 10) able (C2) 8) Aerial Imag Plants (E	gery (C9)
urface Water Present? Yes No X Depth (inches): NA /ater Table Present? Yes No X Depth (inches): NA aturation Present? Yes No X Depth (inches): NA ncludes capillary fringe) No X Depth (inches): NA No X Depth (inches): NA	Vetland Hydrology Indicarimary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Ae	um of one ro	B7)		Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence c Recent Iro Thin Muck Gauge or V	ined Lea una (B1 tic Plan Sulfide izosphei of Redu n Redu Surface Vell Da	ts (B14) Odor (C1) res on Living ced Iron (C4 ction in Tille e (C7) ta (D9)	1)	Se	Surface S Drainage Dry-Sease Crayfish I Saturation Stunted of	oil Cracks (Pattern (B on Water T Burrows (C Visible on A or Stressed whic Positio	B6) 10) Table (C2) 8) Aerial Imag Plants (E n (D2)	gery (C9)
Vater Table Present? Yes No X Depth (inches): NA Wetland Hydrology Present? Yes No X Depth (inches): NA holudes capillary fringe)	Vetland Hydrology Indicationary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Ae	um of one ro	B7)		Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence c Recent Iro Thin Muck Gauge or V	ined Lea una (B1 tic Plan Sulfide izosphei of Redu n Redu Surface Vell Da	ts (B14) Odor (C1) res on Living ced Iron (C4 ction in Tille e (C7) ta (D9)	1)	Se	Surface S Drainage Dry-Sease Crayfish I Saturation Stunted of	oil Cracks (Pattern (B on Water T Burrows (C Visible on A or Stressed whic Positio	B6) 10) Table (C2) 8) Aerial Imag Plants (E n (D2)	gery (C9)
nturation Present? Yes No X Depth (inches): NA	retland Hydrology Indicationary Indicators (minimary Indicators (minimary Indicators (minimary Indicators) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Aeron Sparsely Vegetated Concord	um of one ro	B7) B8)		Water-Stai Aquatic Fa True Aquat Hydrogen Oxidized Rh Presence c Recent Iron Thin Muck Gauge or V Other (Exp	ned Le. una (B1 tic Plan Sulfide izosphei of Redu n Redu Surfaco Well Da lain in	ts (B14) Odor (C1) res on Living ced Iron (Ca ction in Tille e (C7) ta (D9) Remarks)	1)	Se	Surface S Drainage Dry-Sease Crayfish I Saturation Stunted of	oil Cracks (Pattern (B on Water T Burrows (C Visible on A or Stressed whic Positio	B6) 10) Table (C2) 8) Aerial Imag Plants (E n (D2)	gery (C9)
ncludes capillary fringe)	Vetland Hydrology Indicationary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Aerosparsely Vegetated Conconded	um of one ro 2) rial Imagery (I ave Surface (I	B7) B8)	X	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized Rh Presence c Recent Iron Thin Muck Gauge or V Other (Exp	ned Lea una (B1 tic Plan Sulfide izospher of Redu n Redu Surface Vell Da llain in I	ts (B14) Odor (C1) res on Living ced Iron (C4 ction in Tille e (C7) ta (D9) Remarks)	1)	Se	Surface S Drainage Dry-Sease Crayfish I Saturation Stunted of	oil Cracks (Pattern (B on Water T Burrows (C Visible on A or Stressed whic Positio	B6) 10) Table (C2) 8) Aerial Imag Plants (E n (D2)	gery (C9)
	rimary Indicators (minim Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on Aer Sparsely Vegetated Conce	um of one ro	B7) B8) No No _		Water-Stai Aquatic Fa True Aquat Hydrogen Oxidized Rh Presence c Recent Iron Thin Muck Gauge or V Other (Exp	ned Le. una (B1 tic Plan Sulfide izosphei of Redu n Redu Surface Well Da ilain in l hes):	ts (B14) Odor (C1) res on Living ced Iron (C4 ction in Tille e (C7) ta (D9) Remarks)	a) ed Soils (C6)	-	Surface S Drainage Dry-Sease Crayfish I Saturation Stunted of Geomorp FAC-Neur	oil Cracks (Pattern (B pon Water T Burrows (C Visible on A por Stressed whic Positio tral Test (D	B6) 10) fable (C2) 8) Nerial Imag Plants (E n (D2) 5)	gery (C9) 01)

	pical for this blogy No blogy No map show	time of year? significantly naturally pro ing sampli	Section Sectin Section Section Section Section Section Section Section Section	State: Son, Township, of (concave, concave, conc	Range:Nvex, none):Nv(if none): mal Circumston, explain in transects, Area	Convex Datur VI classification: o, explain in Rer tances" present	narks.) ? Yes autres,	B3 X	0/2018 50 No
Remarks: PEM VEGETATION – Use scientific names of		DominantS	Indicato	ſ Do	minanco Toc	t Workshoot			
Tree Stratum (Plot size: 30ft) 1	% Cover	pecies?	Status	Nu Tha	mber of Dom				(A) (B)
Sapling/Shrub Stratum (Plot size: 15ft)	= TO(al CO	vei	Per	cent of Dom	inant Species ACW, or FAC:			(A/B)
1		= Total Co	ver	Tot	evalence Inde tal % Cover o L species	f: 10%	Multip	ly by: 10.0%	<u> </u>
Phalaris arundinacea Spartina pectinata Carex nebrascensis	75% 20% 5%	N N	FACW FACW OBL	— FAC	CW species C species CU species	95% 0% 0%	x 2 x 3 x 4	190.0% 0.0% 0.0%	-
Schoenoplectus acutus .	105%	= Total Co	OBL	Col	L species lumn Totals: Prevalence In		x 5 (A)	0.0% 200% 90	(B)
Woody Vine Stratum (Plot size: 15ft 1)			Ну	drophytic Ve	getation Indica	tors:		<u> </u>
		_ = Total Co	ver	N Indica prese	_ _3 - Prevalen _4 - Morphol data in Rem _Problemation	nce Test if >50% ace Index is ≤ 3.0 logical Adaptationarks or on a sep c Hydrophytic Ve c soil and wetla sturbed or probl	ons (Provincerate she egetation and hydro	eet) (Explain logy mus	1)
Remarks: PEM									

Profile Description: (Des	cribe to the	depth need	ed to docu	ment the i	ndicator or co	nfirm the a	bsence of indicator	
	latrix			Redox F	eatures			
(inches) Color:	9	6	Color:	%	Type:	Loc:	Texture:	Remarks:
0-20 10YR 2,	' 1 10	0%					Clay Loam	
Type: C=Concentration,	D=Depletion,	RM=Reduce	ed Matrix, (CS=Covered	d or Coated Sa	nd Grains	Location:	PL=Pore Lining, M=Matrix
Hydric Soil Indicators: (A	pplicable to	all LRRs, un	less otherv	vise noted.	.)		Indicators for Problem	natic Hydric Soils
Histosol (A1) Histic Epipedon (A2 Black Histic (A3) Hydrogen Sulfide (A Stratified Layers (A5 2 cm Muck (A10) X Depleted Below Da Thick Dark Surface (Sandy Mucky Miner) 4) 5) k Surface (A A12)		Sandy Gle Sandy Re Stripped Loamy M Loamy Gl Depleted Redox Da Depleted	eyed Matrix	ral (F1) ix (F2)) (F6) ce (F7)		Coast Prairie Red Dark Surface (S7) Iron-Manganese Very Shallow Dar Other (Explain in	oc (A16) Masses (F12) k Surface (TF12) Remarks) ytic vegetation and
Sanuy widcky willer	ai (31)		neuux De	:h162210112 (10)		wetland hydrology mu disturbed or problema	
Restrictive Layer (if pres Type: None Depth (inches): N Remarks: PEM							Hydric Soil Present?	Yes <u>X</u> No
HYDROLOGY Wetland Hydrology Indi Primary Indicators (mining Surface Water (A1)) High Water Table (A Saturation (A3)) Water Marks (B1) Sediment Deposits (B3) X Algal Mat or Crust (B1) Iron Deposits (B5) X Inundation Visible on A Sparsely Vegetated Con	mum of one (2) 32) 4) erial Imagery	(B7)	Water Aquat True A Hydro Oxidize Presen Recen Thin N	r-Stained Le ic Fauna (B Aquatic Plan gen Sulfide ed Rhizosphe nce of Redu	ot13) Ints (B14) Ints		Surface Son Drainage Dry-Season Crayfish B Saturation Stunted o	dicators (2 or more required) bil Cracks (B6) Pattern (B10) on Water Table (C2) durrows (C8) Visible on Aerial Imagery (C9) r Stressed Plants (D1) hic Position (D2) ral Test (D5)
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe Describe Recorded Data	Yes Yes	No X No X No X	Depth	(inches): (inches): (inches):	NA NA NA Previous insp		d Hydrology Present?	Yes <u>X</u> No
Remarks:	ton cam Buas			.a. piiotos,				

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC Investigator(s): Paul Swartzinski Landform (hillslope, terrace, etc.): depression Slope (%): <5% Lat:	on		ocal relief (County State: SD Township, Range: concave, convex, no	Samp	oling Point: D	D/30/2018 DP151
Soil Map Unit Name: Are climatic/hydrologic conditions on the site ty Are Vegetation No , Soil No , or Hydro Are Vegetation No , Soil No , or Hydro SUMMARY OF FINDINGS – Attach site	ology No ology No	time of year? significantly naturally pro	? Yes? disturbed? oblematic?	No(Are "Normal Circu (if needed, explain	NWI classification if no, explain in Relanstances" present in Remarks.)	marks.) t? Yes <u>X</u>	
Hydric Soil Present? Yes		<u>х</u> <u>х</u>		e Sampled Area in a Wetland?	YesN	lo <u>X</u>	
VEGETATION – Use scientific names of Tree Stratum (Plot size: 30ft) 1	Absolute % Cover	DominantS pecies?	Indicator Status	Number of I That Are OB	Test Worksheet: Dominant Species L, FACW, or FAC: er of Dominant	0	(A)
Sapling/Shrub Stratum (Plot size: 15ft)	_ = Total Cov	ver	Species Acro Percent of D	oss All Strata: Cominant Species L, FACW, or FAC:	0.0%	(B) (A/B)
1. Herb Stratum (Plot size: 5ft)		= Total Cov	ver	Prevalence Total % Cove		Multiply by:	
 Bromus inermis Phalaris arundinacea 3. 	90%	Y N	FACU FACW	FACW species FAC species FACU specie	es 10% 0%	x 2 20.0 x 3 0.0 x 4 360.0	% %
Woody Vine Stratum (Plot size: 15ft	100%	_ = Total Cov	ver	UPL species Column Tota		x 5 0.09 (A) 3809 3.80	
		= Total Cov	ver	N 1 - Rapid N 2 - Dom N 3 - Prevolution N 4 - Morp data in I N Problem Indicators of h present, unless	to Vegetation Indicated Test for Hydrophylinance Test if >50% alence Index is ≤ 3.0 chological Adaptatis Remarks or on a separtic Hydrophytic Vydric soil and wetlas disturbed or prob	ytic Vegetation 0 ions (Provide superate sheet) regetation (Expland hydrology response)	upporting lain)
				Hydrophytic Vegetation Present?	Yes	_NoX	
Remarks: UPLAND							

Depth Ma (inches) Color:	triv								
Color:			Cala		(Features	1	 Texture:	F	Remarks:
0-20 10YR 3/2			Colo	r: %	K Type:	Loc:	Clay Loam	·	temarks.
0-20 101K 3/2	100	170					Clay Loan		
pe: C=Concentration, D=	Depletion, I	RM=Red	luced Ma	atrix, CS=Cover	red or Coated Sa	and Grains	Locatio	n: PL=Pore Li	ining, M=Matrix
ydric Soil Indicators: (Ap	plicable to a	all LRRs,	unless o	therwise note	ed.)		Indicators for Probl	ematic Hydri	ic Soils
Histosol (A1)		_	San	dy Gleyed Mat	trix (S4)		Coast Prairie Ro	edoc (A16)	
Histic Epipedon (A2)		-		dy Redox (S5)			Dark Surface (S		
Black Histic (A3)		-		pped Matrix (S			Iron-Manganes		
Hydrogen Sulfide (A4) Stratified Layers (A5))			my Mucky Mir my Gleyed Ma			Very Shallow D Other (Explain		(TF12)
2 cm Muck (A10)		=		oleted Matrix (Other (Explain	iii Neiliai KS)	
Depleted Below Dark	Surface (A1	1)		ox Dark Surfac					
Thick Dark Surface (A		-,		leted Dark Su			Indicators of hydrop	hytic vegeta	tion and
Sandy Mucky Mineral	(S1)	-		ox Depression			wetland hydrology r disturbed or probler	nust be pres	
estrictive Layer (if prese	nt):								
Type: None	-						Hydric Sail Brasant	Voc	No. Y
Depth (inches): NA							Hydric Soil Present?	Yes	NoX
emarks:						I.			
etland Hydrology Indica		equired;	check al	I that apply)			Secondary I	ndicators (2	or more required)
etland Hydrology Indica		equired;		l that apply) Water-Stained	Leaves (B9)			ndicators (2 Soil Cracks (or more required) B6)
/etland Hydrology Indica rimary Indicators (minimonal Surface Water (A1) High Water Table (A2)	um of one re	equired;	—)	Water-Stained Aquatic Fauna	(B13)		Surface Drainag	Soil Cracks (e Pattern (B:	B6) 10)
Vetland Hydrology Indicarimary Indicators (minimous Surface Water (A1) High Water Table (A2) Saturation (A3)	um of one re	equired;		Water-Stained Aquatic Fauna True Aquatic P	(B13) Plants (B14)		Surface Drainag Dry-Sea	Soil Cracks (e Pattern (Bí son Water T	B6) 10) able (C2)
Vetland Hydrology Indicarimary Indicators (minimous Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	um of one re	equired;		Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulfi	(B13) Plants (B14) ide Odor (C1)	oots (C2)	Surface Drainag Dry-Sea Crayfish	Soil Cracks (e Pattern (B: son Water T Burrows (C	B6) 10) able (C2) 8)
Vetland Hydrology Indicarimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	um of one re	equired;		Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulfi Oxidized Rhizosp	(B13) Plants (B14) ide Odor (C1) pheres on Living Ro		Surface Drainag Dry-Sea Crayfish Saturatio	Soil Cracks (e Pattern (B: son Water To Burrows (C: on Visible on A	B6) 10) able (C2) 8) verial Imagery (C9)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	um of one re	equired;		Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulfi Oxidized Rhizosp Presence of Re	(B13) Plants (B14) ide Odor (C1) pheres on Living Re educed Iron (C4)		Surface Drainag Dry-Sea Crayfish Saturatio	Soil Cracks (e Pattern (B: son Water T Burrows (CE on Visible on A or Stressed	B6) 10) able (C2) 8) verial Imagery (C9) Plants (D1)
Vetland Hydrology Indicarimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	um of one re	equired;		Water-Stained Aquatic Fauna Irue Aquatic P Hydrogen Sulfi Oxidized Rhizosp Presence of Re Recent Iron Re	(B13) Plants (B14) ide Odor (C1) pheres on Living Reduced Iron (C4) eduction in Tilled		Surface Drainag Dry-Sea Crayfish Saturatic Stunted	Soil Cracks (e Pattern (B: son Water To Burrows (C: on Visible on A	B6) 10) fable (C2) 8) serial Imagery (C9) Plants (D1) n (D2)
Vetland Hydrology Indicarimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	um of one re			Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulfi Oxidized Rhizosp Presence of Re	(B13) Plants (B14) ide Odor (C1) Pheres on Living Reduced Iron (C4) Publication in Tilled face (C7)		Surface Drainag Dry-Sea Crayfish Saturatic Stunted	Soil Cracks (e Pattern (B: son Water T Burrows (CS on Visible on A or Stressed rphic Position	B6) 10) fable (C2) 8) serial Imagery (C9) Plants (D1) n (D2)
Vetland Hydrology Indicationary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	um of one re 2) (a) (b) (c) (c) (d)	37)		Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulfi Dxidized Rhizosp Presence of Re Recent Iron Re Thin Muck Sur	(B13) Plants (B14) ide Odor (C1) Pheres on Living Reduced Iron (C4) Eduction in Tilled face (C7) Data (D9)		Surface Drainag Dry-Sea Crayfish Saturatic Stunted	Soil Cracks (e Pattern (B: son Water T Burrows (CS on Visible on A or Stressed rphic Position	B6) 10) fable (C2) 8) serial Imagery (C9) Plants (D1) n (D2)
Vetland Hydrology Indicarimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer	um of one re 2) (a) (b) (c) (c) (d)	37)		Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulfi Oxidized Rhizosp Presence of Re Recent Iron Re Thin Muck Sur Gauge or Well	(B13) Plants (B14) ide Odor (C1) Pheres on Living Reduced Iron (C4) Eduction in Tilled face (C7) Data (D9)		Surface Drainag Dry-Sea Crayfish Saturatic Stunted	Soil Cracks (e Pattern (B: son Water T Burrows (CS on Visible on A or Stressed rphic Position	B6) 10) fable (C2) 8) serial Imagery (C9) Plants (D1) n (D2)
retland Hydrology Indicatimary Indicators (minimary Indicators (minimary Indicators) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Sparsely Vegetated Concert	um of one re 2) rial Imagery (B ave Surface (B	37) 38)		Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulfi Dxidized Rhizosp Presence of Re Recent Iron Re Thin Muck Sur Gauge or Well Other (Explain	(B13) Plants (B14) ide Odor (C1) pheres on Living Reduced Iron (C4) eduction in Tilled face (C7) Data (D9) in Remarks)		Surface Drainag Dry-Sea Crayfish Saturatic Stunted	Soil Cracks (e Pattern (B: son Water T Burrows (CS on Visible on A or Stressed rphic Position	B6) 10) fable (C2) 8) serial Imagery (C9) Plants (D1) n (D2)
Vetland Hydrology Indicationary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Sparsely Vegetated Concorded	um of one re 2) rial Imagery (E ave Surface (E	37) 38) No		Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulfi Oxidized Rhizosp Presence of Re Recent Iron Re Thin Muck Sur Gauge or Well Other (Explain	(B13) Plants (B14) ide Odor (C1) Pheres on Living Reduced Iron (C4) Eduction in Tilled face (C7) Data (D9) in Remarks)	Soils (C6)	Surface Drainag Dry-Sea Crayfish Saturatio Stunted Geomo FAC-Ne	Soil Cracks (e Pattern (B: son Water T. Burrows (C: on Visible on A or Stressed rphic Position utral Test (D:	B6) 10) able (C2) 8) serial Imagery (C9) Plants (D1) n (D2) 5)
Vetland Hydrology Indicarimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Sparsely Vegetated Concorded	um of one re 2) rial Imagery (E ave Surface (E Yes Yes	37) 38) No No _	X I	Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulfi Dxidized Rhizosp Presence of Re Recent Iron Re Thin Muck Sur Gauge or Well Other (Explain Depth (inches)	(B13) Plants (B14) ide Odor (C1) pheres on Living Reduced Iron (C4) eduction in Tilled face (C7) Data (D9) in Remarks) E. NA E. NA	Soils (C6)	Surface Drainag Dry-Sea Crayfish Saturatic Stunted	Soil Cracks (e Pattern (B: son Water T Burrows (CS on Visible on A or Stressed rphic Position	B6) 10) able (C2) 8) serial Imagery (C9) Plants (D1) n (D2) 5)
Vetland Hydrology Indicarimary Indicators (minimary Indicators (minimary Indicators (Minimary Indicators) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer	um of one re 2) rial Imagery (E ave Surface (E Yes Yes Yes	37) 38) No No	X I	Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulfi Oxidized Rhizosp Presence of Re Recent Iron Re Thin Muck Sur Gauge or Well Other (Explain Depth (inches) Depth (inches)	(B13) Plants (B14) ide Odor (C1) pheres on Living Reduced Iron (C4) eduction in Tilled face (C7) Data (D9) in Remarks) NA	Soils (C6)	Surface Drainag Dry-Sea Crayfish Saturatio Stunted Geomo FAC-Ne	Soil Cracks (e Pattern (B: son Water T. Burrows (C: on Visible on A or Stressed rphic Position utral Test (D:	B6) 10) able (C2) 8) serial Imagery (C9) Plants (D1) n (D2) 5)

_	rpical for this ology No ology No map show	time of year? significantly naturally pro	ocal relief Long: Yes disturbed? bblematic? ng point l	State: SD , Township, Range: (concave, convex, n X No Are "Normal Circ (if needed, expla	Samp one): Convex Datu NWI classification (if no, explain in Red cumstances" present in in Remarks.)	m: NAD83 : marks.) ? Yes X	/31/2018 /152 No
Remarks: PEM VEGETATION – Use scientific names of Tree Stratum (Plot size: 30ft)		DominantS pecies?	Indicator Status		e Test Worksheet: Dominant Species		
1)	= Total Cov	ver	That Are O Total Num Species Ac Percent of	BL, FACW, or FAC: ber of Dominant ross All Strata: Dominant Species BL, FACW, or FAC:	1 1 100.0%	(A) (B) (A/B)
1. Herb Stratum (Plot size: 5ft) 1. Phalaris arundinacea 2. Spartina pectinata 3.	90% 15%	= Total Cov	FACW FACW	Prevalence Total % Co OBL specie FACW specie FAC specie FACU specie UPL specie	0% cies 105% s 0% ies 0%	Multiply by: x 1	<u>//</u>
Woody Vine Stratum (Plot size: 15ft 1.		= Total Cov	<i>v</i> er	Hydrophyl N 1 - Rap Y 2 - Dor Y 3 - Pre N 4 - Mo data ir N Proble Indicators of	ice Index = B/A = ic Vegetation Indica id Test for Hydrophy minance Test if >50% valence Index is ≤ 3.0 rphological Adaptation Remarks or on a sep matic Hydrophytic Voly hydric soil and wetla ss disturbed or prob	rtic Vegetation O ons (Provide supperate sheet) egetation (Expland hydrology men	oporting
Remarks: PEM				Vegetation Present?		No	

Profile Desc	ription: (D	escribe to	the depth	needed	to document the i	indicator or co	nfirm the al	bsence of indicator	
Depth		Matrix			Redox F	eatures			
(inches)	Colo	r:	%	Со	olor: %	Type:	Loc:	Texture:	Remarks:
0-4	10YR		100%					Clay Loam	
4-20	10YR	-	80%	10V	R 4/6 20%	S C	М	Clay Loam	
4-20	TOTA	2/1		101	1 4/0 20/0				
Type: C=Cor	ncentration	, D=Deple	etion, RM=I	Reduced	Matrix, CS=Covere	d or Coated Sa	nd Grains	Location:	PL=Pore Lining, M=Matrix
Hydric Soil I	ndicators:	(Applicab	le to all LR	Rs, unles	s otherwise noted	l.)		Indicators for Problem	natic Hydric Soils
Histoso	. ,				andy Gleyed Matri	ix (S4)		Coast Prairie Red	` '
	pipedon (A	2)			andy Redox (S5)			Dark Surface (S7)	
	listic (A3)	(a			tripped Matrix (S6			Iron-Manganese	
	gen Sulfide				oamy Mucky Mine			Very Shallow Dar	
	ed Layers (<i>I</i> Iuck (A10)	45)			oamy Gleyed Matr			Other (Explain in	kemarks)
	ed Below D	ark Surfa	co (A11)		Depleted Matrix (F3 Redox Dark Surface				
l ———	ark Surface		ce (AII)		Depleted Dark Surface				
	Mucky Min				Redox Depressions			Indicators of hydrophy wetland hydrology mu	
		o. a. (0_)			.cucx 2 cp. cos.c	(. 0)		disturbed or problema	
		- 1						ę	
Restrictive L		esent):							
		NΙΛ						Hydric Soil Present?	Yes X No
Depth (i	inches):	NA							
HYDROLO									
Wetland Hy									
	-		one requir	ed; check	call that apply)	(50)			licators (2 or more required)
·	Water (A1)			_	Water-Stained L				oil Cracks (B6)
U	ater Table (A2)			Aquatic Fauna (E True Aquatic Pla			_	Pattern (B10) on Water Table (C2)
X Saturati	лаrks (B1)			_	Hydrogen Sulfid				surrows (C8)
	nt Deposits	(B2)		_	Oxidized Rhizosph	` '	oots (C3)		Visible on Aerial Imagery (C9)
	posits (B3)	(32)		_	Presence of Red	_	, ,		r Stressed Plants (D1)
	at or Crust	(B4)			Recent Iron Red	` '	Soils (C6)		hic Position (D2)
Iron Der	oosits (B5)			_	Thin Muck Surfa			X FAC-Neut	
Inundatio	on Visible on	Aerial Ima	igery (B7)		Gauge or Well D	ata (D9)			
Sparsely	Vegetated C	oncave Sur	rface (B8)	_	Other (Explain in	n Remarks)			
Field Observ	vations:								
Surface Wat		? Yes	N	o _ X	Depth (inches):	NA			
Water Table	Present?		N		Depth (inches):	NA	Wetland	Hydrology Present?	Yes X No
Saturation P	resent?		N		Depth (inches):	4	ciaila	, 2.0.08, 1.030110	
(includes ca		e)							
Describe Re	corded Dat	a (stream	guage, mo	nitoring	well, aerial photos	, previous insp	ections), if a	available:	
Remarks:									

Project/Site: Tatanka Ridge Wind Project Applicant/Owner: Buffalo Ridge III, LLC Investigator(s): Paul Swartzinski		City/Cour	Sec	ction, To	State: <u>SD</u> ownship, Range:	S	ampling Daampling Poi	-	
Landform (hillslope, terrace, etc.): depression					ncave, convex, non				
Slope (%): <5% Lat:			Long:				Datum: NA	D83	
Soil Map Unit Name:			2 1/			NWI classifica			
Are climatic/hydrologic conditions on the site ty Are Vegetation No , Soil No , or Hydro						f no, explain ii mstancos" pro			No
Are Vegetation No , Soil No , or Hydro					(if needed, explain		:SCIIL: 1CS		_ 110
SUMMARY OF FINDINGS – Attach site	map show	ing sampli			•	•	nt feautre	s, etc.	
Hydrophytic Vegetation Present? Yes _	No	X							
Hydric Soil Present? Yes	No	X			ampled Area	Voc	No X		
Wetland Hydrology Present? Yes	No	Χ		within	a Wetland?	162	NO ^		
Remarks:									
VEGETATION – Use scientific names of	plants								
Tree Stratum (Plot size: 30ft)	Absolute	DominantS			Dominance 1	Test Workshe	et:		
Tree stratum (Flot size. Soit)	% Cover	pecies?	Status	S	Number of D	ominant Spec	ies		
						., FACW, or FA		0	_ (A)
1	-					r of Dominant	t	1	(D)
	-	_ = Total Co	ver		Species Acros				_ (B)
Sapling/Shrub Stratum (Plot size: 15ft)					ominant Speci ., FACW, or FA		0.0%	_ (A/B)
1					Prevalence II	ndex Workshe	eet:		
		= Total Co	ver		Total % Cove			iply by:	
Herb Stratum (Plot size: 5ft)					OBL species	0%	x 1	0.0%	_
1. Bromus inermis	95%	Υ	FAC	CU			=====		
2.					FACW specie		x 2	0.0%	
2.	95%	= Total Co			FAC species	0%	x 3	0.0%	
Manda Vina Charles (District) 45ft	95%	= 10(a) C0	vei		FACU species			380.0%	<u> </u>
Woody Vine Stratum (Plot size: 15ft	_)				UPL species	0%	x 5	0.0%	
					Column Tota	ls: 95.0%	6 (A)	380%	(B)
1	-				Prevalence	e Index = B/A :	=	4.00	
		_ = Total Co	ver		Hydrophytic	Vegetation In	ndicators:		<u> </u>
					N 1 - Rapid	Test for Hydr	ophytic Veg	etation	
					N 2 - Domii	nance Test if >	>50%		
						lence Index is			
								ovido cup	norting
					data in R N Problema	hological Ada _l emarks or on atic Hydrophy	a seperate : tic Vegetati	sheet) on (Explai	in)
					Indicators of hy present, unless		•		ıst be
					Hydrophytic Vegetation Present?	Yes	No _	x	
Remarks: UPLAND									

Depth Ma (inches) Color:	triv								
Color:			Cala		(Features	1	 Texture:	F	Remarks:
0-20 10YR 3/2			Colo	r: %	K Type:	Loc:	Clay Loam	·	temarks.
0-20 101K 3/2	100	170					Clay Loan		
pe: C=Concentration, D=	Depletion, I	RM=Red	luced Ma	atrix, CS=Cover	red or Coated Sa	and Grains	Locatio	n: PL=Pore Li	ining, M=Matrix
ydric Soil Indicators: (Ap	plicable to a	all LRRs,	unless o	therwise note	ed.)		Indicators for Probl	ematic Hydri	ic Soils
Histosol (A1)		_	San	dy Gleyed Mat	trix (S4)		Coast Prairie Ro	edoc (A16)	
Histic Epipedon (A2)		-		dy Redox (S5)			Dark Surface (S		
Black Histic (A3)		-		pped Matrix (S			Iron-Manganes		
Hydrogen Sulfide (A4) Stratified Layers (A5))			my Mucky Mir my Gleyed Ma			Very Shallow D Other (Explain		(TF12)
2 cm Muck (A10)		=		oleted Matrix (Other (Explain	iii Neiliai KS)	
Depleted Below Dark	Surface (A1	1)		ox Dark Surfac					
Thick Dark Surface (A		-,		leted Dark Su			Indicators of hydrop	hytic vegeta	tion and
Sandy Mucky Mineral	(S1)	-		ox Depression			wetland hydrology r disturbed or probler	nust be pres	
estrictive Layer (if prese	nt):								
Type: None	-						Hydric Sail Brasant	Voc	No. Y
Depth (inches): NA							Hydric Soil Present?	Yes	NoX
emarks:						I.			
etland Hydrology Indica		equired;	check al	I that apply)			Secondary I	ndicators (2	or more required)
etland Hydrology Indica		equired;		l that apply) Water-Stained	Leaves (B9)			ndicators (2 Soil Cracks (or more required) B6)
/etland Hydrology Indica rimary Indicators (minimonal Surface Water (A1) High Water Table (A2)	um of one re	equired;	—)	Water-Stained Aquatic Fauna	(B13)		Surface Drainag	Soil Cracks (e Pattern (B:	B6) 10)
Vetland Hydrology Indicarimary Indicators (minimous Surface Water (A1) High Water Table (A2) Saturation (A3)	um of one re	equired;		Water-Stained Aquatic Fauna True Aquatic P	(B13) Plants (B14)		Surface Drainag Dry-Sea	Soil Cracks (e Pattern (Bí son Water T	B6) 10) able (C2)
Vetland Hydrology Indicarimary Indicators (minimous Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	um of one re	equired;		Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulfi	(B13) Plants (B14) ide Odor (C1)	oots (C2)	Surface Drainag Dry-Sea Crayfish	Soil Cracks (e Pattern (B: son Water T Burrows (C	B6) 10) able (C2) 8)
Vetland Hydrology Indicarimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	um of one re	equired;		Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulfi Oxidized Rhizosp	(B13) Plants (B14) ide Odor (C1) pheres on Living Ro		Surface Drainag Dry-Sea Crayfish Saturatio	Soil Cracks (e Pattern (B: son Water To Burrows (C: on Visible on A	B6) 10) able (C2) 8) verial Imagery (C9)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	um of one re	equired;		Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulfi Oxidized Rhizosp Presence of Re	(B13) Plants (B14) ide Odor (C1) pheres on Living Re educed Iron (C4)		Surface Drainag Dry-Sea Crayfish Saturatio	Soil Cracks (e Pattern (B: son Water T Burrows (CE on Visible on A or Stressed	B6) 10) able (C2) 8) verial Imagery (C9) Plants (D1)
Vetland Hydrology Indicarimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	um of one re	equired;		Water-Stained Aquatic Fauna Irue Aquatic P Hydrogen Sulfi Oxidized Rhizosp Presence of Re Recent Iron Re	(B13) Plants (B14) ide Odor (C1) pheres on Living Reduced Iron (C4) eduction in Tilled		Surface Drainag Dry-Sea Crayfish Saturatic Stunted	Soil Cracks (e Pattern (B: son Water To Burrows (C: on Visible on A	B6) 10) fable (C2) 8) serial Imagery (C9) Plants (D1) n (D2)
Vetland Hydrology Indicarimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	um of one re			Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulfi Oxidized Rhizosp Presence of Re	(B13) Plants (B14) ide Odor (C1) Pheres on Living Reduced Iron (C4) Publication in Tilled face (C7)		Surface Drainag Dry-Sea Crayfish Saturatic Stunted	Soil Cracks (e Pattern (B: son Water T Burrows (CS on Visible on A or Stressed rphic Position	B6) 10) fable (C2) 8) serial Imagery (C9) Plants (D1) n (D2)
Vetland Hydrology Indicationary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	um of one re 2) (a) (b) (c) (c) (d)	37)		Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulfi Dxidized Rhizosp Presence of Re Recent Iron Re Thin Muck Sur	(B13) Plants (B14) ide Odor (C1) Pheres on Living Reduced Iron (C4) Eduction in Tilled face (C7) Data (D9)		Surface Drainag Dry-Sea Crayfish Saturatic Stunted	Soil Cracks (e Pattern (B: son Water T Burrows (CS on Visible on A or Stressed rphic Position	B6) 10) fable (C2) 8) serial Imagery (C9) Plants (D1) n (D2)
Vetland Hydrology Indicarimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer	um of one re 2) (a) (b) (c) (c) (d)	37)		Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulfi Oxidized Rhizosp Presence of Re Recent Iron Re Thin Muck Sur Gauge or Well	(B13) Plants (B14) ide Odor (C1) Pheres on Living Reduced Iron (C4) Eduction in Tilled face (C7) Data (D9)		Surface Drainag Dry-Sea Crayfish Saturatic Stunted	Soil Cracks (e Pattern (B: son Water T Burrows (CS on Visible on A or Stressed rphic Position	B6) 10) fable (C2) 8) serial Imagery (C9) Plants (D1) n (D2)
retland Hydrology Indicatimary Indicators (minimary Indicators (minimary Indicators) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Sparsely Vegetated Concert	um of one re 2) rial Imagery (B ave Surface (B	37) 38)		Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulfi Dxidized Rhizosp Presence of Re Recent Iron Re Thin Muck Sur Gauge or Well Other (Explain	(B13) Plants (B14) ide Odor (C1) pheres on Living Reduced Iron (C4) eduction in Tilled face (C7) Data (D9) in Remarks)		Surface Drainag Dry-Sea Crayfish Saturatic Stunted	Soil Cracks (e Pattern (B: son Water T Burrows (CS on Visible on A or Stressed rphic Position	B6) 10) fable (C2) 8) serial Imagery (C9) Plants (D1) n (D2)
Vetland Hydrology Indicationary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Sparsely Vegetated Concorded	um of one re 2) rial Imagery (E ave Surface (E	37) 38) No		Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulfi Oxidized Rhizosp Presence of Re Recent Iron Re Thin Muck Sur Gauge or Well Other (Explain	(B13) Plants (B14) ide Odor (C1) Pheres on Living Reduced Iron (C4) Eduction in Tilled face (C7) Data (D9) in Remarks)	Soils (C6)	Surface Drainag Dry-Sea Crayfish Saturatio Stunted Geomo FAC-Ne	Soil Cracks (e Pattern (B: son Water T. Burrows (C: on Visible on A or Stressed rphic Position utral Test (D:	B6) 10) able (C2) 8) serial Imagery (C9) Plants (D1) n (D2) 5)
Vetland Hydrology Indicarimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Sparsely Vegetated Concorded	um of one re 2) rial Imagery (E ave Surface (E Yes Yes	37) 38) No No _	X I	Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulfi Dxidized Rhizosp Presence of Re Recent Iron Re Thin Muck Sur Gauge or Well Other (Explain Depth (inches)	(B13) Plants (B14) ide Odor (C1) pheres on Living Reduced Iron (C4) eduction in Tilled face (C7) Data (D9) in Remarks) E. NA E. NA	Soils (C6)	Surface Drainag Dry-Sea Crayfish Saturatic Stunted	Soil Cracks (e Pattern (B: son Water T Burrows (CS on Visible on A or Stressed rphic Position	B6) 10) able (C2) 8) serial Imagery (C9) Plants (D1) n (D2) 5)
Vetland Hydrology Indicarimary Indicators (minimary Indicators (minimary Indicators (Minimary Indicators) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer	um of one re 2) rial Imagery (E ave Surface (E Yes Yes Yes	37) 38) No No	X I	Water-Stained Aquatic Fauna True Aquatic P Hydrogen Sulfi Oxidized Rhizosp Presence of Re Recent Iron Re Thin Muck Sur Gauge or Well Other (Explain Depth (inches) Depth (inches)	(B13) Plants (B14) ide Odor (C1) pheres on Living Reduced Iron (C4) eduction in Tilled face (C7) Data (D9) in Remarks) NA	Soils (C6)	Surface Drainag Dry-Sea Crayfish Saturatio Stunted Geomo FAC-Ne	Soil Cracks (e Pattern (B: son Water T. Burrows (C: on Visible on A or Stressed rphic Position utral Test (D:	B6) 10) able (C2) 8) serial Imagery (C9) Plants (D1) n (D2) 5)

APPENDIX C

Additional Documentation

See attached CD, which contains photographs of aquatic features and their associated data points and GIS Shapefiles of the delineated features