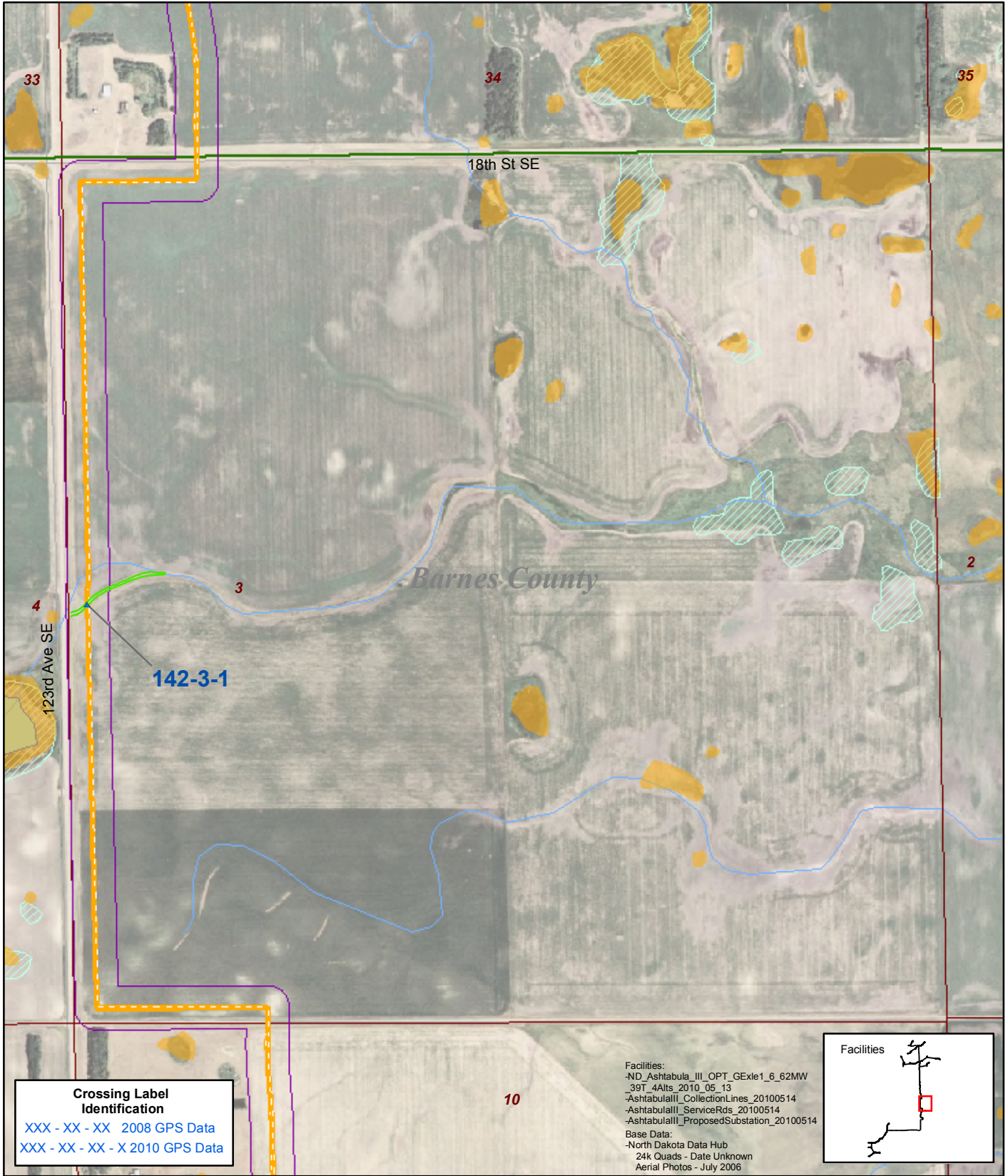


**Appendix A**  
**of the**  
**Jurisdiction Determination Report**  
**for the Ashtabula III Wind Energy Center**  
**Project**

**Ashtabula III Wind Energy Center, LLC**  
**Barnes County, North Dakota**

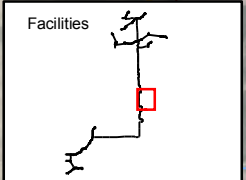
**July 2010**

**TOWNSHIP 142N**  
**RANGE 57W**  
**SECTION 3**



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

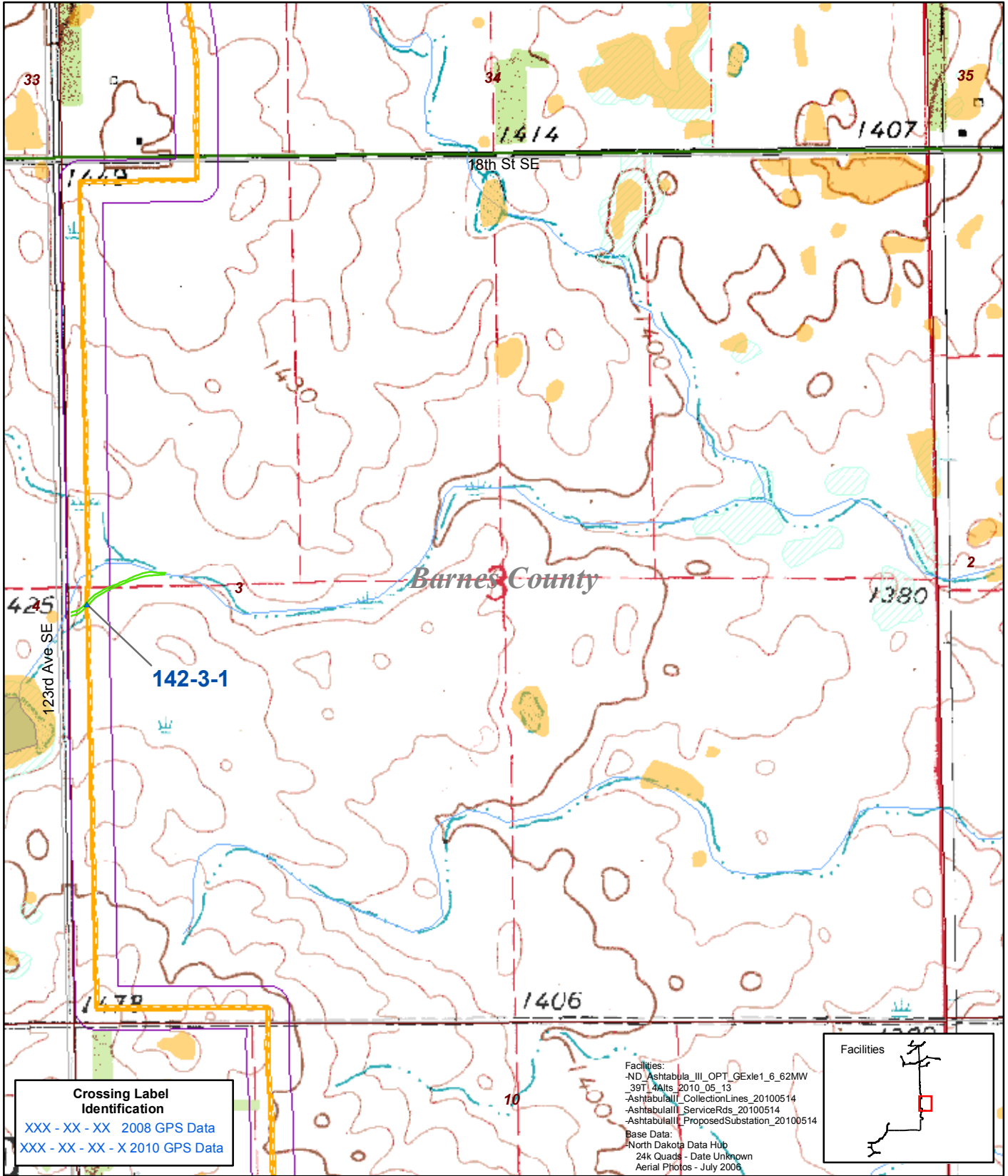
**Facilities:**  
 -ND\_AshTabula\_III\_OPT\_GExle1\_6\_62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
**Base Data:**  
 -North Dakota Data Hub  
 24k Quads - Date Unknown  
 Aerial Photos - July 2006



- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ■ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                         |
| ▲ USFWS Easement                      | — Collector              | □ Township                        |
| Wetland                               | — Service Road           | □ County                          |
| RPW Boundary                          | ■ Substation             | □ USFWS Wetland Easement          |
| Wetland Boundary                      | ■ Area of Investigation  | □ USFWS Easement                  |
|                                       | ■ Lake/Pond              | ■ USFWS Waterfowl Production Area |

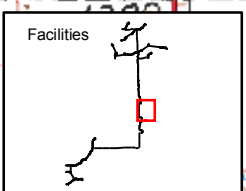
June 28, 2010  
 Ashtabula III  
 Wind Energy Center  
 Barnes County, North Dakota

**T142N  
 R57W  
 Section 3**



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

Facilities:  
 -ND\_AshTabula\_III\_OPT\_GExle1\_6\_62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
 Base Data:  
 -North Dakota Data Hub  
 -24K Quads - Date Unknown  
 -Aerial Photos - July 2006



- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ■ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                         |
| ▲ USFWS Easement                      | — Collector              | □ Township                        |
| ~ Wetland                             | — Service Road           | □ County                          |
| ~ RPW Boundary                        | ■ Substation             | □ USFWS Wetland Easement          |
| ~ Wetland Boundary                    | ■ Area of Investigation  | □ USFWS Easement                  |
|                                       | ■ Lake/Pond              | ■ USFWS Waterfowl Production Area |

June 28, 2010  
 Ashtabula III  
 Wind Energy Center  
 Barnes County, North Dakota  
**T142N  
 R57W  
 Section 3**

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
**(1987 COE Wetlands Delineation Manual)**

Project/Site : Ashtabula LLC 142-3-1	Date : 04/29/2008
Applicant/Owner : FPL	County : Barnes
Investigator : GCD/MRE	State : North Dakota
Do Normal Circumstances Exist on the Site ? <input checked="" type="checkbox"/>	Community ID : 142-3-1
Is the Site Significantly Disturbed (Atypical Situation) ? <input type="checkbox"/>	Transect ID : T1
Is the Area a Potential Problem Area ? <input type="checkbox"/> (If needed, explain on reverse.)	Plot ID: A

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)				100.00%	
Remarks : Vegetation dominated by hydrophytes.					
P: Perennial N: Native E: Emergent F: Forb G: Grass					

**HYDROLOGY**

<input checked="" type="radio"/> Recorded Data(Describe in Remarks) <input type="checkbox"/> Stream, Lake or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="radio"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b> <b>Primary Indicators :</b> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated In Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands  <b>Secondary Indicators (2 or more required)</b> <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain In Remarks)
<b>Field Observations</b>  Depth of Surface Water (inches) : 0  Depth to Saturated Soil (inches) : >12  Depth to Free water in Pit (inches) : >12	
Remarks : Photos: View East (Page 1)	

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	<b>BALATON</b>	Drainage Class :	moderately well
(Series and Phase)	DRAINED	Field Observation	<input type="checkbox"/>
Taxonomy (subgroup)	AQUIC CALCIUDOLLS	Confirm Mapped Type	

Profile Description :					
Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators	
<input type="checkbox"/> Histosols	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

**WETLAND DETERMINATION**

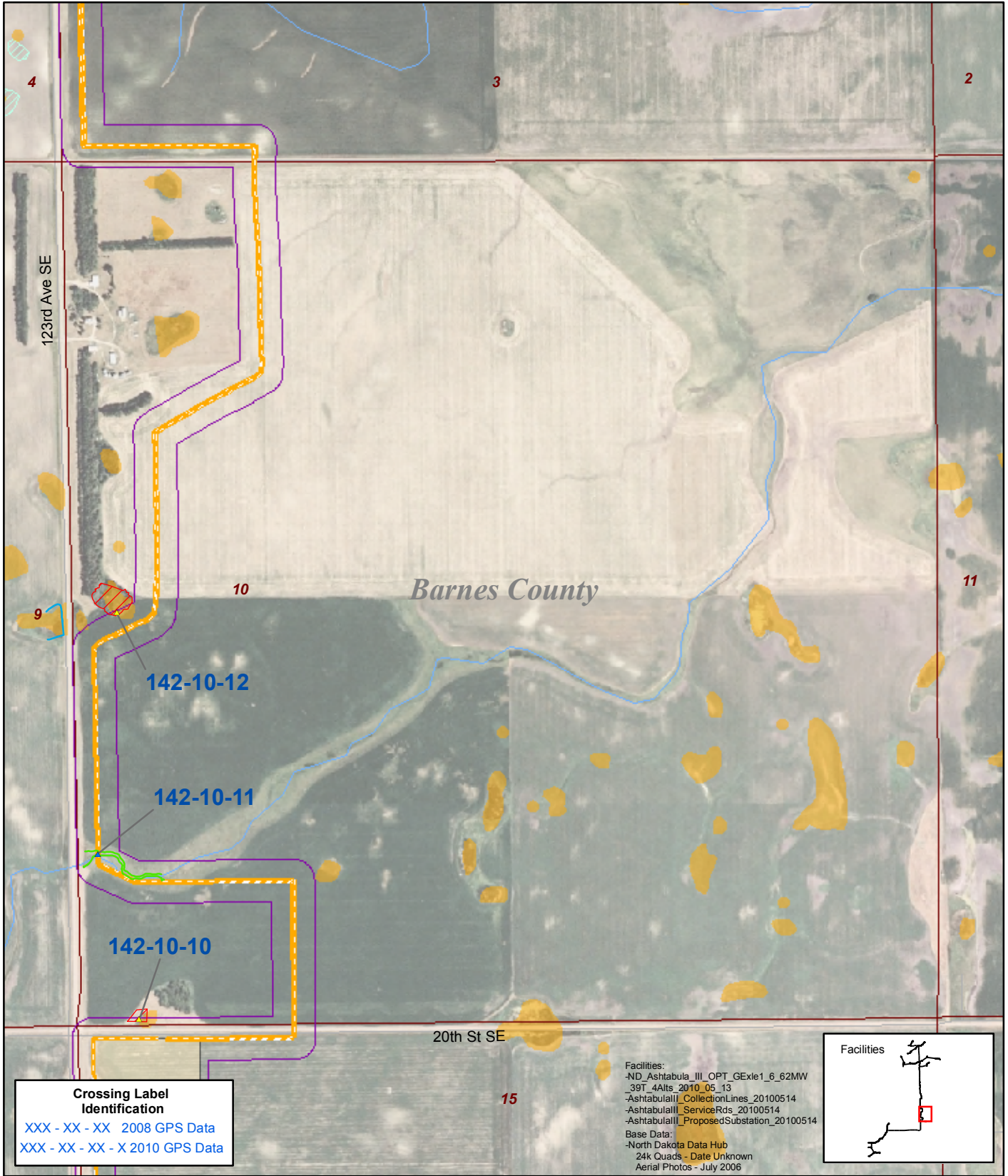
Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.



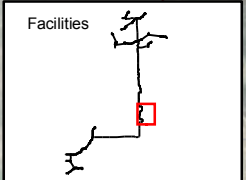
**142-3-1 View Facing East 04/29/08**

**TOWNSHIP 142N**  
**RANGE 57W**  
**SECTION 10**



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

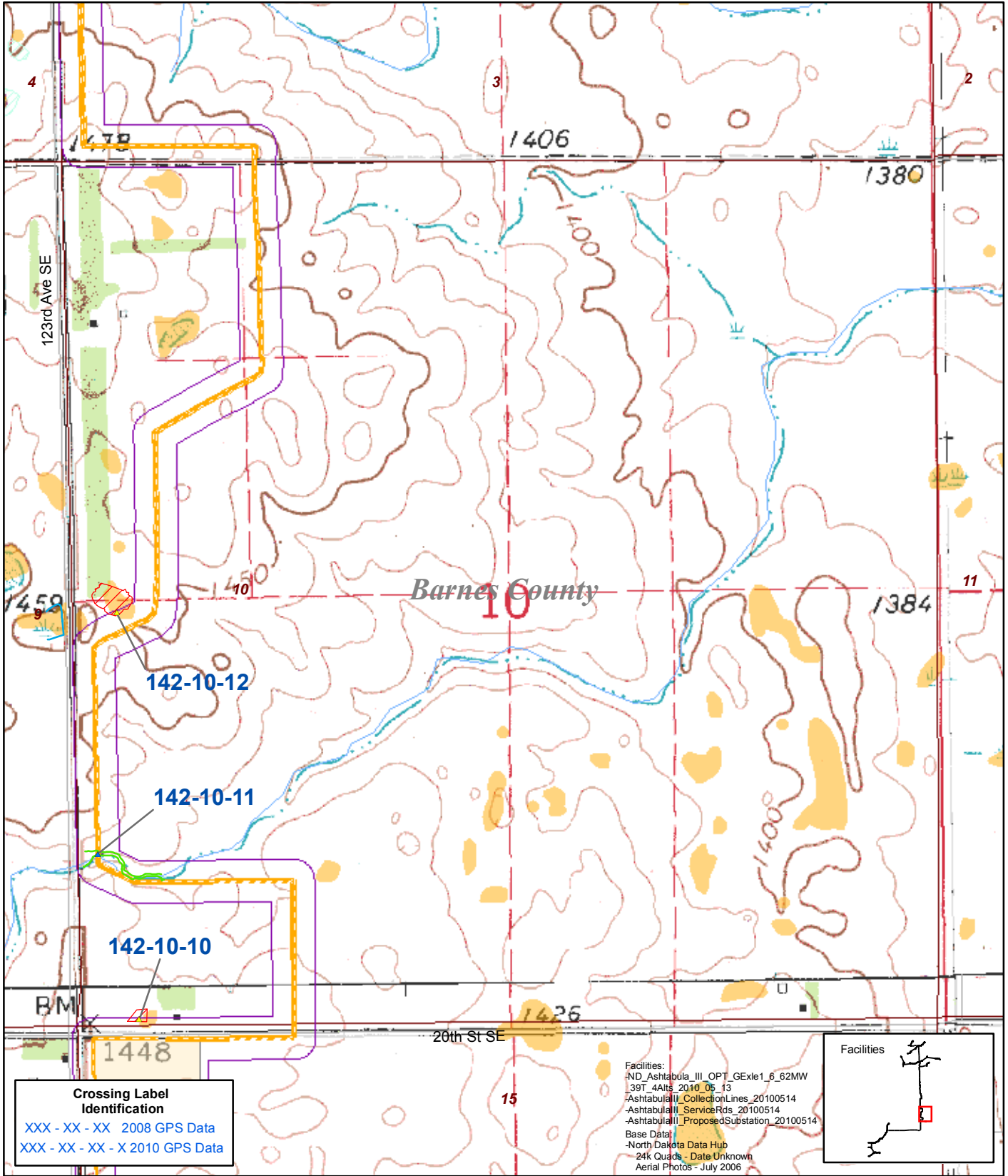
Facilities:  
 -ND\_AshTabula\_III\_OPT\_GExle1\_6\_62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
 Base Data:  
 -North Dakota Data Hub  
 24k Quads - Date Unknown  
 Aerial Photos - July 2006



● Crossing Location	● Culvert	~ River/Stream
▲ Non-Jurisdictional Isolated Wetland	● Non-Wetland Data Point	— Road
▲ USACE Jurisdictional	● Wetland Data Point	■ NWI Area
▲ USACE/USFWS Jurisdictional	● Turbine	□ Section
▲ USFWS Easement	— Collector	□ Township
■ Wetland	— Service Road	□ County
— RPW Boundary	■ Substation	■ USFWS Wetland Easement
— Wetland Boundary	■ Area of Investigation	■ USFWS Easement
	■ Lake/Pond	■ USFWS Waterfowl Production Area

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 Ashtabula III  
 Wind Energy Center  
 Barnes County, North Dakota

T142N  
 R57W  
 Section 10



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

1:10,000

● Crossing Location	● Culvert	~ River/Stream
▲ Non-Jurisdictional Isolated Wetland	● Non-Wetland Data Point	— Road
▲ USACE Jurisdictional	● Wetland Data Point	■ NWI Area
▲ USACE/USFWS Jurisdictional	● Turbine	□ Section
▲ USFWS Easement	— Collector	□ Township
■ Wetland	— Service Road	□ County
— RPW Boundary	■ Substation	□ USFWS Wetland Easement
— Wetland Boundary	□ Area of Investigation	□ USFWS Easement
	■ Lake/Pond	■ USFWS Waterfowl Production Area

June 28, 2010  
 Ashtabula III  
 Wind Energy Center  
 Barnes County, North Dakota

**T142N  
 R57W  
 Section 10**

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
**(1987 COE Wetlands Delineation Manual)**

Project/Site : Ashtabula LLC 142-10-10	Date : 04/29/2008
Applicant/Owner : FPL	County : Barnes
Investigator : GCD/MRE	State : North Dakota
Do Normal Circumstances Exist on the Site ? <input checked="" type="checkbox"/>	Community ID : 142-10-10
Is the Site Significantly Disturbed (Atypical Situation) ? <input type="checkbox"/>	Transect ID : T1
Is the Area a Potential Problem Area ? <input type="checkbox"/> (If needed, explain on reverse.)	Plot ID: A

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+
Rumex crispus	PIF	FACW	Phragmites australis	PNEG	FACW
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)				100.00%	
Remarks : Vegetation dominated by hydrophytes.					
P: Perennial      I: Introduced N: Native E: Emergent F: Forb G: Grass					

**HYDROLOGY**

<input checked="" type="radio"/> Recorded Data(Describe in Remarks) <input type="checkbox"/> Stream, Lake or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="radio"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b> <b>Primary Indicators :</b> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated In Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands <b>Secondary Indicators (2 or more required)</b> <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain In Remarks)
Field Observations  Depth of Surface Water (inches) : 0  Depth to Saturated Soil (inches) : >12  Depth to Free water in Pit (inches) : >12	
Remarks : Photos: View East (Page 1)	

Soil Name	<b>PARNELL</b>	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	<input type="checkbox"/>
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :					
Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	5 Y 3/1			SIC 2 msbk
6-16	Bq	5 Y 2.5/1			SIC 3 fsbk

Hydric Soil Indicators	
<input type="checkbox"/> Histosols	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input checked="" type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input checked="" type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks: Soils may also contain Argiaquic Argialbolls. Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.



**142-10-10 View Facing East 04/29/08**

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
**(1987 COE Wetlands Delineation Manual)**

Project/Site : Ashtabula LLC 142-10-11	Date : 04/29/2008
Applicant/Owner : FPL	County : Barnes
Investigator : GCD/MRE	State : North Dakota
Do Normal Circumstances Exist on the Site ? <input checked="" type="checkbox"/>	Community ID : 142-10-11
Is the Site Significantly Disturbed (Atypical Situation) ? <input type="checkbox"/>	Transect ID : T1
Is the Area a Potential Problem Area ? <input type="checkbox"/> (If needed, explain on reverse.)	Plot ID: A

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Phragmites australis	PNEG	FACW
Spartina pectinata	PNG	FACW	Polygonum hydropiperoid	PNEF	OBL
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)				100.00%	
Remarks : Vegetation dominated by hydrophytes.					
P: Perennial N: Native E: Emergent F: Forb G: Grass					

**HYDROLOGY**

<input checked="" type="radio"/> Recorded Data(Describe in Remarks) <input type="checkbox"/> Stream, Lake or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="radio"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b> <b>Primary Indicators :</b> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated In Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands <b>Secondary Indicators (2 or more required)</b> <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain In Remarks)
Field Observations Depth of Surface Water (inches) : 0 Depth to Saturated Soil (inches) : >12 Depth to Free water in Pit (inches) : >12	
Remarks : Photos: View East (Page 1)	

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	<b>BALATON</b>	Drainage Class :	moderately well
(Series and Phase)	DRAINED	Field Observation	<input type="checkbox"/>
Taxonomy (subgroup)	AQUIC CALCIUDOLLS	Confirm Mapped Type	

Profile Description :					
Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators	
<input type="checkbox"/> Histosols	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks  
Soils may also contain Vertic Argiaquolls . Soil profile was not investigated. Listed as hydric soil by NRCS.

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.



**142-10-11 View Facing East 04/29/08**

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
**(1987 COE Wetlands Delineation Manual)**

Project/Site : Ashtabula LLC 142-10-12	Date : 04/29/2008
Applicant/Owner : FPL	County : Barnes
Investigator : GCD/MRE	State : North Dakota
Do Normal Circumstances Exist on the Site ? <input checked="" type="checkbox"/>	Community ID : 142-10-12
Is the Site Significantly Disturbed (Atypical Situation) ? <input type="checkbox"/>	Transect ID : T1
Is the Area a Potential Problem Area ? <input type="checkbox"/> (If needed, explain on reverse.)	Plot ID: A

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+
Phragmites australis	PNEG	FACW	Polygonum hydropiperoid	PNEF	OBL
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)				100.00%	
Remarks : P: Perennial N: Native E: Emergent F: Forb G: Grass Vegetation dominated by hydrophytes.					

**HYDROLOGY**

<input checked="" type="radio"/> Recorded Data(Describe in Remarks) <input type="checkbox"/> Stream, Lake or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="radio"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b> Primary Indicators : <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated In Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required) <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain In Remarks)
Field Observations Depth of Surface Water (inches) : 0 Depth to Saturated Soil (inches) : >12 Depth to Free water in Pit (inches) : >12	
Remarks : Photos: View Northwest (Page 1)	

Soil Name	<b>VALLERS, BOULDERY</b>	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	<input type="checkbox"/>
Taxonomy (subgroup)	TYPIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :					
Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators	
<input type="checkbox"/> Histosols	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks : Soil profile was not investigated. Listed as hydric soil by NRCS.

**WETLAND DETERMINATION**

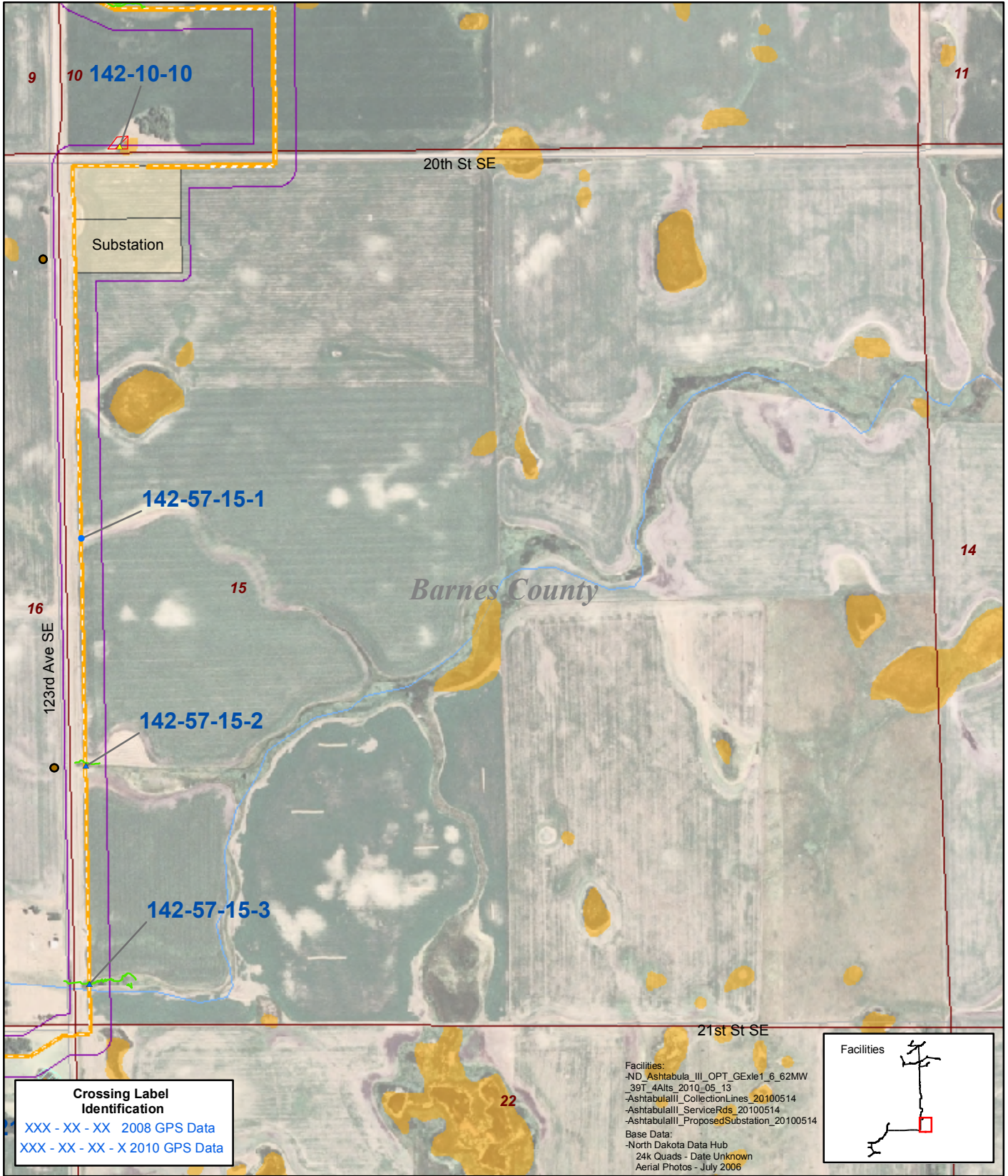
Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.



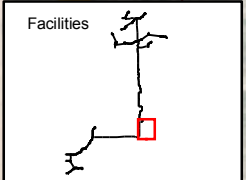
**142-10-12 View Facing Northwest 04/29/08**

**TOWNSHIP 142N**  
**RANGE 57W**  
**SECTION 15**



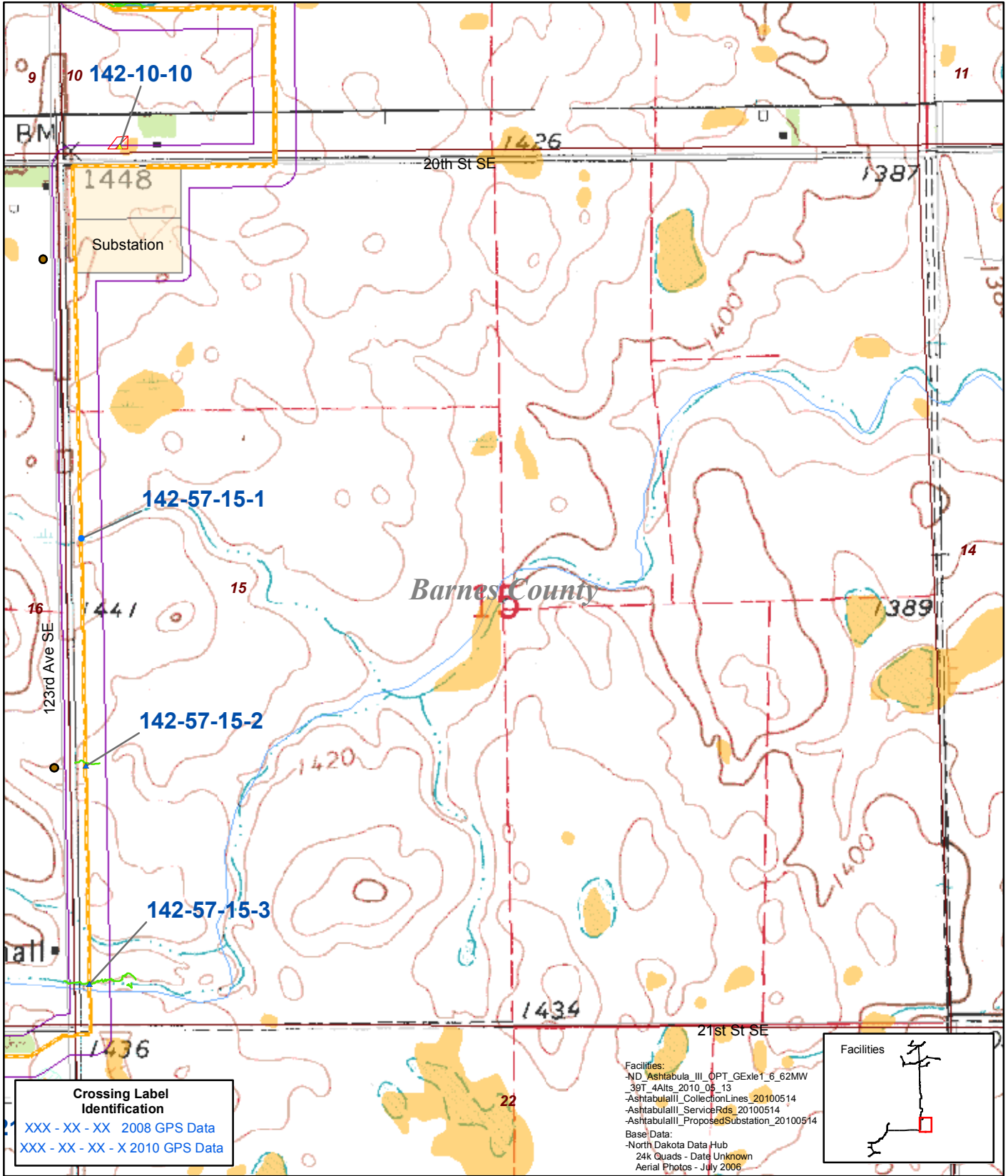
**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

Facilities:  
 -ND\_AshTabula\_III\_OPT\_GE1e1\_6\_62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
 Base Data:  
 -North Dakota Data Hub  
 24k Quads - Date Unknown  
 Aerial Photos - July 2006



- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ■ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                         |
| ▲ USFWS Easement                      | — Collector              | □ Township                        |
| Wetland                               | — Service Road           | □ County                          |
| RPW Boundary                          | ■ Substation             | □ USFWS Wetland Easement          |
| Wetland Boundary                      | ■ Area of Investigation  | □ USFWS Easement                  |
|                                       | ■ Lake/Pond              | ■ USFWS Waterfowl Production Area |

June 28, 2010  
 Ashtabula III  
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 Barnes County, North Dakota  
**T142N  
 R57W  
 Section 15**



**Crossing Label Identification**  
 XXX-XX-XX 2008 GPS Data  
 XXX-XX-XX-X 2010 GPS Data

0 500 1,000 Feet  
 1:10,000

**TETRA TECH** **NEXTERA ENERGY**

- Crossing Location
- ▲ Non-Jurisdictional Isolated Wetland
- ▲ USACE Jurisdictional
- ▲ USACE/USFWS Jurisdictional
- ▲ USFWS Easement
- Wetland
- RPW Boundary
- Wetland Boundary
- Culvert
- Non-Wetland Data Point
- Wetland Data Point
- Turbine
- Collector
- Service Road
- Substation
- Area of Investigation
- Lake/Pond
- River/Stream
- Road
- NWI Area
- Section
- Township
- County
- USFWS Wetland Easement
- USFWS Easement
- USFWS Waterfowl Production Area

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 Ashtabula III  
 Wind Energy Center  
 Barnes County, North Dakota

**T142N  
 R57W  
 Section 15**

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 18-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 142-57-15-1  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 15 T 142 R 57  
**Landform (hillslope, terrace, etc.):** Swale **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.117855 **Long.:** -97.896360 **Datum:** NAD 83  
**Soil Map Unit Name:** Hamerly-Tonka complex 0 to 3 percent slopes **NWI classification:** N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation  , Soil  , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation  , Soil  , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants** Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)
1. _____	0	<input type="checkbox"/>	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
2. _____	0	<input type="checkbox"/>	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b>
1. _____	0	<input type="checkbox"/>	_____	Total % Cover of: _____ Multiply by: _____
2. _____	0	<input type="checkbox"/>	_____	OBL species <u>0</u> x 1 = <u>0</u>
3. _____	0	<input type="checkbox"/>	_____	FACW species <u>0</u> x 2 = <u>0</u>
4. _____	0	<input type="checkbox"/>	_____	FAC species <u>0</u> x 3 = <u>0</u>
5. _____	0	<input type="checkbox"/>	_____	FACU species <u>80</u> x 4 = <u>320</u>
	0	<b>= Total Cover</b>		UPL species <u>20</u> x 5 = <u>100</u>
<b>Herb Stratum</b> (Plot size: _____)				<b>Column Totals:</b> <u>100</u> (A) <u>420</u> (B)
1. Bromus inermis	20	<input checked="" type="checkbox"/>	20.0% UPL	Prevalence Index = B/A = <u>4.2</u>
2. Taraxacum officinale	20	<input checked="" type="checkbox"/>	20.0% FACU	
3. Trifolium repens	20	<input checked="" type="checkbox"/>	20.0% FACU	
4. Lolium perenne	40	<input checked="" type="checkbox"/>	40.0% FACU	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation  
 2 - Dominance Test is > 50%  
 3 - Prevalence Index is ≤ 3.0<sup>1</sup>  
 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.

**Hydrophytic Vegetation Present?** Yes  No

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View East (Page 1), View West (Page 2)

**Soil**

Sampling Point: 142-57-15-1

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	2/1					Silt Loam	

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Water Table Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe)    Yes     No     Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photos

**Remarks:**

Non-wetland vegetative swale.



Location 142-57-15-1: Pit 05-18-10



Location 142-57-15-1: Pedon 05-18-10



Location 142-57-15-1: View East 05-18-10



Location 142-57-15-1: View West 05-18-10

**SEE APPENDIX B  
FOR  
LOCATION 142-57-15-2  
JURISDICTIONAL  
DETERMINATION  
FORM**



Location 142-57-15-2: View East 05-18-10



Location 142-57-15-2: View West 05-18-10

**SEE APPENDIX B  
FOR  
LOCATION 142-57-15-3  
JURISDICTIONAL  
DETERMINATION  
FORM**



Location 142-57-15-3: View East 05-18-10



Location 142-57-15-3: View West 05-18-10

**TOWNSHIP 142N**  
**RANGE 57W**  
**SECTION 17**

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 18-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 142-57-17-1  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 17 T 142 R 57  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.109909 **Long.:** -97.923890 **Datum:** NAD 83

**Soil Map Unit Name:** Vallery-Parnell complex, 0 to 1 percent slopes **NWI classification:** N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Hydric Soil Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Wetland Hydrology Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

**Dominant Species?** FWS Region:

Stratum	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A)
1. _____	0	<input type="checkbox"/>	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
2. _____	0	<input type="checkbox"/>	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b>
1. _____	0	<input type="checkbox"/>	_____	Total % Cover of: _____ Multiply by: _____
2. _____	0	<input type="checkbox"/>	_____	OBL species <u>60</u> x 1 = <u>60</u>
3. _____	0	<input type="checkbox"/>	_____	FACW species <u>40</u> x 2 = <u>80</u>
4. _____	0	<input type="checkbox"/>	_____	FAC species <u>0</u> x 3 = <u>0</u>
5. _____	0	<input type="checkbox"/>	_____	FACU species <u>0</u> x 4 = <u>0</u>
	0	<b>= Total Cover</b>		UPL species <u>0</u> x 5 = <u>0</u>
<b>Herb Stratum</b> (Plot size: _____)				<b>Column Totals:</b> <u>100</u> (A) <u>140</u> (B)
1. Typha angustifolia	40	<input checked="" type="checkbox"/>	40.0% OBL	Prevalence Index = B/A = <u>1.4</u>
2. Phalaris arundinacea	40	<input checked="" type="checkbox"/>	40.0% FACW+	
3. Carex aquatilis	20	<input checked="" type="checkbox"/>	20.0% OBL	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation  
 2 - Dominance Test is > 50%  
 3 - Prevalence Index is ≤ 3.0<sup>1</sup>  
 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.

**Hydrophytic Vegetation Present?** Yes  No

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: View North (Page 1), View South (Page 1)

**Soil**

Sampling Point: 142-57-17-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

(MLRA 72 and 73 of LRR H)

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Soil profile not investigated. Listed as hydric by the NRCS.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches):     3      
 Water Table Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Saturation Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photos

**Remarks:**

Isolated wetland - possesses no discreet or confined surface or shallow subsurface connection to a tributary stream eventually flowing into a navigable water of the United States. Therefore, this wetland is not hydrologically connected to a water of the United States.



Location 142-57-17-1: View North 05-18-10



Location 142-57-17-1: View South 05-18-10

## WETLAND DETERMINATION DATA FORM - Great Plains Region

**Project/Site:** Ashtabula 3 Wind Energy Center      **City/County:** Barnes      **Sampling Date:** 18-May-10  
**Applicant/Owner:** NextEra      **State:** ND      **Sampling Point:** 142-57-17-2  
**Investigator(s):** MRE/CAY      **Section, Township, Range:** S 17      T 142      R 57  
**Landform (hillslope, terrace, etc.):** Swale      **Local relief (concave, convex, none):** concave      **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F      **Lat.:** 47.109816      **Long.:** -97.924612      **Datum:** NAD 83

**Soil Map Unit Name:** Vallery-Parnell complex, 0 to 1 percent slopes      **NWI classification:** PEMA

**Are climatic/hydrologic conditions on the site typical for this time of year?**      Yes  No       (If no, explain in Remarks.)  
**Are Vegetation , Soil , or Hydrology  significantly disturbed?**      Are "Normal Circumstances" present?      Yes  No   
**Are Vegetation , Soil , or Hydrology  naturally problematic?**      (If needed, explain any answers in Remarks.)

### Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/> <b>Hydric Soil Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Wetland Hydrology Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

### VEGETATION - Use scientific names of plants Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
	0	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of:      Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>100</u> x 5 = <u>500</u> <b>Column Totals:</b> <u>100</u> (A) <u>500</u> (B)  Prevalence Index = B/A = <u>5</u>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
5. _____	0	<input type="checkbox"/>		
	0	= Total Cover		
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is > 50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Triticum x aestivum	100	<input checked="" type="checkbox"/>	100.0% UPL	
2. _____	0	<input type="checkbox"/>	0.0%	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
	0	= Total Cover		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View Northeast (Page 2), View Southwest (Page 2)

**Soil**

Sampling Point: 142-57-17-2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	2/1	100%				Silt Loam	

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |
|--|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)                 |
| <input type="checkbox"/> Coastal Prairie Redox (A16) (LRR F, G, H) |
| <input type="checkbox"/> Dark Surface (S7) (LRR G)                 |
| <input type="checkbox"/> High Plains Depressions (F16)             |
| <b>(LRR H outside of MLRA 72 and 73)</b>                           |
| <input type="checkbox"/> Reduced Vertic (F18)                      |
| <input type="checkbox"/> Red Parent Material (TF2)                 |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12)          |
| <input type="checkbox"/> Other (Explain in Remarks)                |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Surface Soil Cracks (B6)                   |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)    |
| <input checked="" type="checkbox"/> Drainage Patterns (B10)         |
| <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |
| <b>(where tilled)</b>   |
| <input type="checkbox"/> Crayfish Burrows (C8)                      |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  |
| <input type="checkbox"/> Geomorphic Position (D2)                   |
| <input type="checkbox"/> FAC-neutral Test (D5)                      |
| <input type="checkbox"/> Frost Heave Hummocks (D7) (LRR F)          |

**Field Observations:**

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

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photos

**Remarks:**

Farmed Swale.



Location 142-57-17-2: Pit 05-18-10



Location 142-57-17-2: Pedon 05-18-10

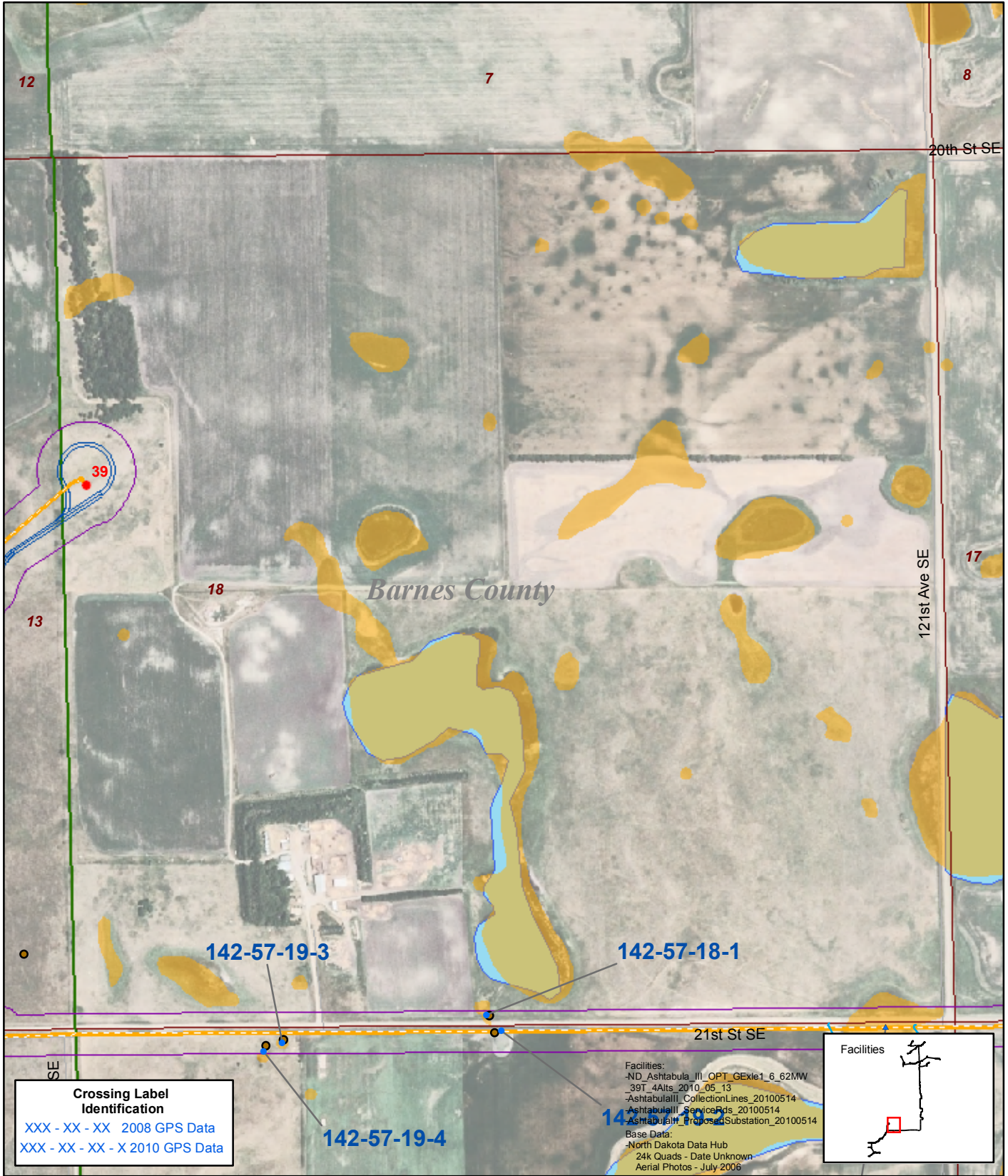


Location 142-57-17-2: View Northeast 05-18-10

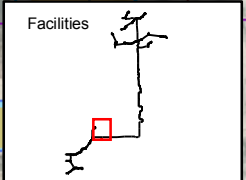


Location 142-57-17-2: View Southwest 05-18-10

**TOWNSHIP 142N**  
**RANGE 57W**  
**SECTION 18**



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data



Facilities:  
 -ND\_AshTabula\_III\_OPT\_GE1e1\_6\_62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_Substation\_20100514  
 Base Data:  
 -North Dakota Data Hub  
 -24k Quads - Date Unknown  
 -Aerial Photos - July 2006

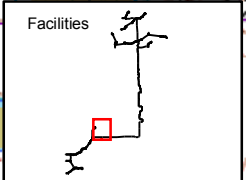
- Crossing Location
- ▲ Non-Jurisdictional Isolated Wetland
- ▲ USACE Jurisdictional
- ▲ USACE/USFWS Jurisdictional
- ▲ USFWS Easement
- Wetland
- RPW Boundary
- Wetland Boundary
- Culvert
- Non-Wetland Data Point
- Wetland Data Point
- Turbine
- Collector
- Service Road
- Substation
- Area of Investigation
- Lake/Pond
- River/Stream
- Road
- NWI Area
- Section
- Township
- County
- USFWS Wetland Easement
- USFWS Easement
- USFWS Waterfowl Production Area

June 28, 2010  
 Ashtabula III  
 Wind Energy Center  
 Barnes County, North Dakota  
**T142N  
 R57W  
 Section 18**



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

Facilities:  
 -ND\_Ashitabula\_III\_OPT\_GEX16\_62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServicePds\_20100514  
 -AshtabulaIII\_Substation\_20100514  
 Base Data:  
 -North Dakota Data Hub  
 -24k Quads - Date Unknown  
 -Aerial Photos - July 2006



- Crossing Location
- ▲ Non-Jurisdictional Isolated Wetland
- ▲ USACE Jurisdictional
- ▲ USACE/USFWS Jurisdictional
- ▲ USFWS Easement
- Wetland
- RPW Boundary
- Wetland Boundary
- Culvert
- Non-Wetland Data Point
- Wetland Data Point
- Turbine
- Collector
- Service Road
- Substation
- Area of Investigation
- Lake/Pond
- ~ River/Stream
- Road
- NWI Area
- Section
- Township
- County
- USFWS Wetland Easement
- USFWS Easement
- USFWS Waterfowl Production Area

June 28, 2010  
 Ashtabula III  
 Wind Energy Center  
 Barnes County, North Dakota

T142N  
 R57W  
 Section 18

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 18-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 142-57-18-1  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 18 T 142 R 57  
**Landform (hillslope, terrace, etc.):** Swale **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.109844 **Long.:** -97.950524 **Datum:** NAD 83  
**Soil Map Unit Name:** Divide loam, 0 to 2 percent slopes **NWI classification:** PEMAd

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants** Dominant Species? FWS Region:

Tree Stratum (Plot size: _____)	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
1. _____	0	<input type="checkbox"/>	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
			<b>= Total Cover</b>	
<b>Sapling/Shrub Stratum (Plot size: _____)</b>				
1. _____	0	<input type="checkbox"/>	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>60</u> x 4 = <u>240</u> UPL species <u>40</u> x 5 = <u>200</u> <b>Column Totals:</b> <u>100</u> (A) <u>440</u> (B)  Prevalence Index = B/A = <u>4.4</u>
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
			<b>= Total Cover</b>	
<b>Herb Stratum (Plot size: _____)</b>				
1. Bromus inermis	40	<input checked="" type="checkbox"/>	40.0% UPL	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is > 50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
2. Lolium perenne	30	<input checked="" type="checkbox"/>	30.0% FACU	
3. Taraxacum officinale	20	<input checked="" type="checkbox"/>	20.0% FACU	
4. Trifolium repens	10	<input type="checkbox"/>	10.0% FACU	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
			<b>= Total Cover</b>	
<b>Woody Vine Stratum (Plot size: _____)</b>				
1. _____	0	<input type="checkbox"/>	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
2. _____	0	<input type="checkbox"/>	_____	
			<b>= Total Cover</b>	
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

**Soil**

Sampling Point: 142-57-18-1

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	2/1					Silt Loam	

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

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

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

(MLRA 72 and 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Water Table Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe)    Yes     No     Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photos

**Remarks:**

Non-wetland vegetative swale.



Location 142-57-18-1: Pit 05-18-10



Location 142-57-18-1: Pedon 05-18-10

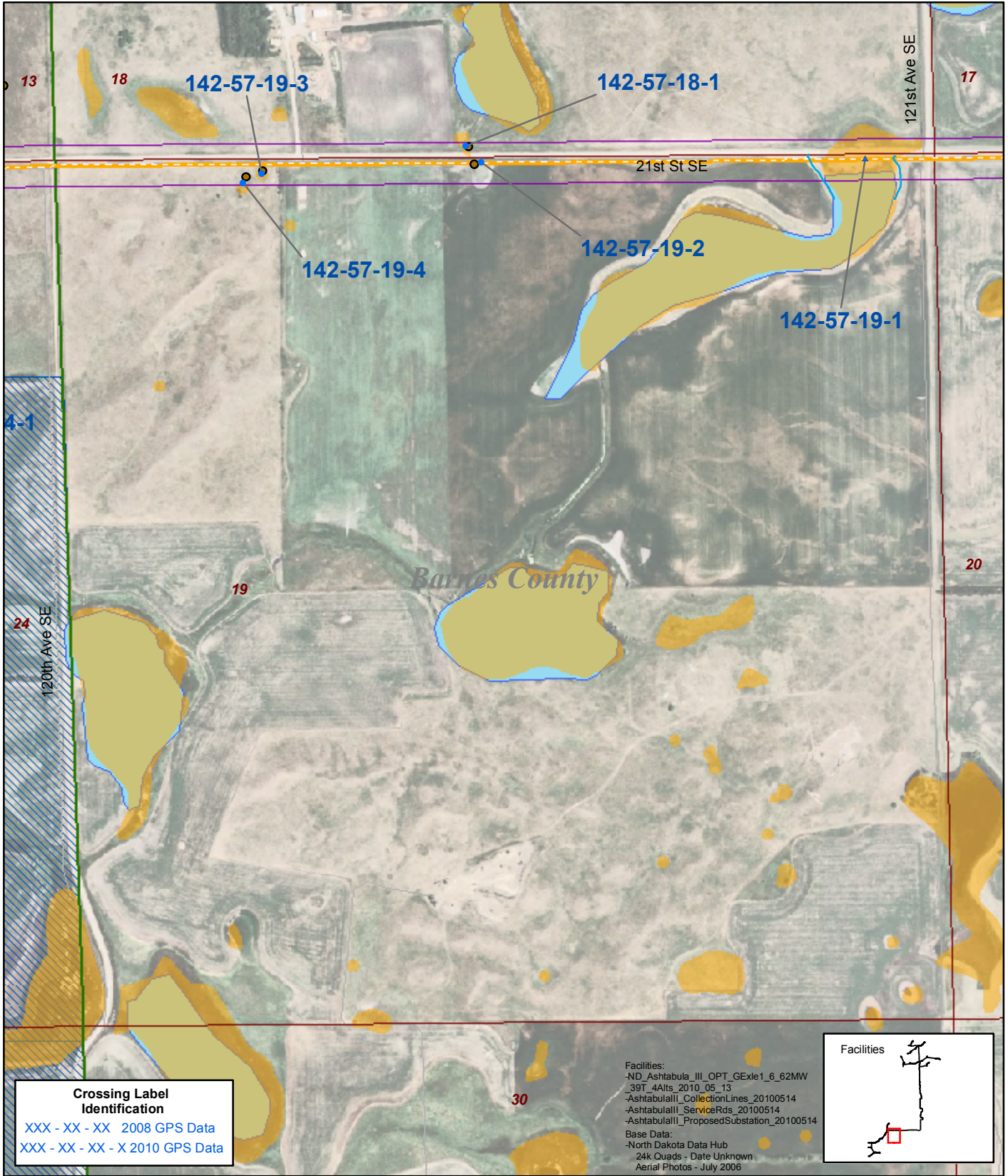


Location 142-57-18-1: View North 05-18-10



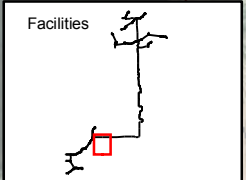
Location 142-57-18-1: View South 05-18-10

**TOWNSHIP 142N**  
**RANGE 57W**  
**SECTION 19**



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

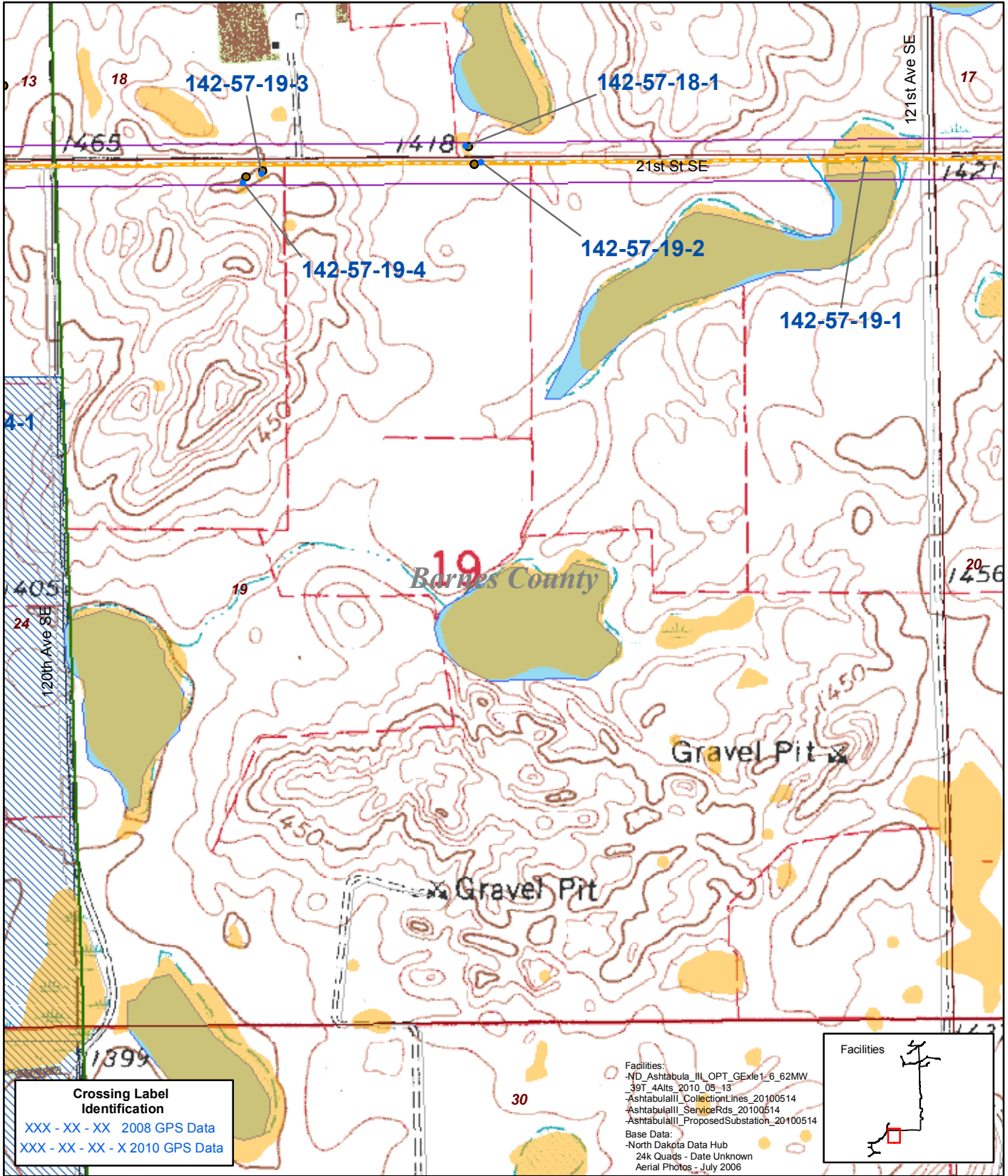
**Facilities:**  
 -ND\_AshTabula\_III\_OPT\_GExle1\_6\_62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
**Base Data:**  
 -North Dakota Data Hub  
 -24k Quads - Date Unknown  
 -Aerial Photos - July 2006



- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ■ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                         |
| ▲ USFWS Easement                      | — Collector              | □ Township                        |
| Wetland                               | — Service Road           | □ County                          |
| RPW Boundary                          | ■ Substation             | □ USFWS Wetland Easement          |
| Wetland Boundary                      | ■ Area of Investigation  | □ USFWS Easement                  |
|                                       | ■ Lake/Pond              | ■ USFWS Waterfowl Production Area |

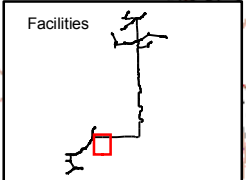
June 28, 2010  
 Ashtabula III  
 Wind Energy Center  
 Barnes County, North Dakota

T142N  
R57W  
Section 19



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

**Facilities:**  
 -ND\_AshTabula\_III\_OPT\_GExle1-6\_62MW  
 -39T\_4AIts\_2010\_05-13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
**Base Data:**  
 -North Dakota Data Hub  
 24K Quads - Date Unknown  
 Aerial Photos - July 2006



- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ■ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                         |
| ▲ USFWS Easement                      | — Collector              | □ Township                        |
| Wetland                               | — Service Road           | □ County                          |
| RPW Boundary                          | ■ Substation             | □ USFWS Wetland Easement          |
| Wetland Boundary                      | □ Area of Investigation  | □ USFWS Easement                  |
|                                       | ● Lake/Pond              | ■ USFWS Waterfowl Production Area |

June 28, 2010  
 Ashtabula III  
 Wind Energy Center  
 Barnes County, North Dakota  
**T142N  
 R57W  
 Section 19**

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 18-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 142-57-19-1  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 19 T 142 R 57  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 3.0% / 1.7 °  
**Subregion (LRR):** LRR F **Lat.:** 47.109548 **Long.:** -97.940770 **Datum:** NAD 83  
**Soil Map Unit Name:** Parnell silty clay loam, 0 to 1 percent slopes **NWI classification:** PEMC

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants** Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>2</u> (A)
1. _____	0	<input type="checkbox"/>	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
2. _____	0	<input type="checkbox"/>	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b>
1. _____	0	<input type="checkbox"/>	_____	Total % Cover of: _____ Multiply by: _____
2. _____	0	<input type="checkbox"/>	_____	OBL species <u>80</u> x 1 = <u>80</u>
3. _____	0	<input type="checkbox"/>	_____	FACW species <u>20</u> x 2 = <u>40</u>
4. _____	0	<input type="checkbox"/>	_____	FAC species <u>0</u> x 3 = <u>0</u>
5. _____	0	<input type="checkbox"/>	_____	FACU species <u>0</u> x 4 = <u>0</u>
	0	<b>= Total Cover</b>		UPL species <u>0</u> x 5 = <u>0</u>
<b>Herb Stratum</b> (Plot size: _____)				<b>Column Totals:</b> <u>100</u> (A) <u>120</u> (B)
1. Typha angustifolia	70	<input checked="" type="checkbox"/>	70.0% OBL	Prevalence Index = B/A = <u>1.2</u>
2. Phalaris arundinacea	20	<input checked="" type="checkbox"/>	20.0% FACW+	
3. Carex aquatilis	10	<input type="checkbox"/>	10.0% OBL	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Hydrophytic Vegetation Indicators:**  
 1 - Rapid Test for Hydrophytic Vegetation  
 2 - Dominance Test is > 50%  
 3 - Prevalence Index is ≤ 3.0<sup>1</sup>  
 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes  No

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: View Northeast (Page 1), View Southeast (Page 1), View Southwest (Page 2), View Northwest (Page 2)

**Soil**

Sampling Point: 142-57-19-1

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |  |
|--|--|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)                 |  |
| <input type="checkbox"/> Coastal Prairie Redox (A16) (LRR F, G, H) |  |
| <input type="checkbox"/> Dark Surface (S7) (LRR G)                 |  |
| <input type="checkbox"/> High Plains Depressions (F16)             |  |
| <b>(LRR H outside of MLRA 72 and 73)</b>                           |  |
| <input type="checkbox"/> Reduced Vertic (F18)                      |  |
| <input type="checkbox"/> Red Parent Material (TF2)                 |  |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12)          |  |
| <input type="checkbox"/> Other (Explain in Remarks)                |  |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Soil profile not investigated. Listed as hydric by the NRCS.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

- |   |  |
|---|--|
| <input type="checkbox"/> Surface Soil Cracks (B6)                   |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)    |  |
| <input checked="" type="checkbox"/> Drainage Patterns (B10)         |  |
| <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |  |
| <b>(where tilled)</b>   |  |
| <input type="checkbox"/> Crayfish Burrows (C8)                      |  |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  |  |
| <input type="checkbox"/> Geomorphic Position (D2)                   |  |
| <input checked="" type="checkbox"/> FAC-neutral Test (D5)           |  |
| <input type="checkbox"/> Frost Heave Hummocks (D7) (LRR F)          |  |

**Field Observations:**

Surface Water Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>8</u>
Water Table Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photos

**Remarks:**

Wetland - possesses a discreet or confined surface or shallow subsurface connection to a tributary stream eventually flowing into a navigable water of the United States. Therefore, the wetland is hydrologically connected to a water of the United States.



Location 142-57-19-1: View Southeast 05-18-10



Location 142-57-19-1: View Northeast 05-18-10



Location 142-57-19-1: View Southwest 05-18-10



Location 142-57-19-1: View Northwest 05-18-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 18-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 142-57-19-2  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 19 T 142 R 57  
**Landform (hillslope, terrace, etc.):** Flat **Local relief (concave, convex, none):** flat **Slope:** 1.0% / 0.6 °  
**Subregion (LRR):** LRR F **Lat.:** 47.109573 **Long.:** -97.950160 **Datum:** NAD 83

**Soil Map Unit Name:** Divide loam, 0 to 2 percent slopes **NWI classification:** N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants** Dominant Species? FWS Region:

Tree Stratum (Plot size: _____)	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
1. _____	0	<input type="checkbox"/>	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>100</u> x 5 = <u>500</u> <b>Column Totals:</b> <u>100</u> (A) <u>500</u> (B)  Prevalence Index = B/A = <u>5</u>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is > 50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Zea mays	100	<input checked="" type="checkbox"/>	100.0% UPL	
2. _____	0	<input type="checkbox"/>	0.0%	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
<b>= Total Cover</b>				
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

**Soil**

Sampling Point: 142-57-19-2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	2/1					Silt Loam	

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes  No

**Remarks:**

Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes  No  Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes  No

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

Aerial Photos

**Remarks:**

Farmed Swale.



Location 142-57-19-2: Pit 05-18-10



Location 142-57-19-2: Pedon 05-18-10



Location 142-57-19-2: View North 05-18-10



Location 142-57-19-2: View South 05-18-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 18-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 142-57-19-3  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 19 T 142 R 57  
**Landform (hillslope, terrace, etc.):** Swale **Local relief (concave, convex, none):** concave **Slope:** 3.0% / 1.7 °  
**Subregion (LRR):** LRR F **Lat.:** 47.109424 **Long.:** -97.955526 **Datum:** NAD 83  
**Soil Map Unit Name:** Buse-Barnes loams, 15 to 35 percent slopes **NWI classification:** PEMA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/> <b>Hydric Soil Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Wetland Hydrology Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

**Dominant Species?** FWS Region:

Tree Stratum (Plot size: _____)	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
1. _____	0	<input type="checkbox"/>	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
		<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>50</u> x 4 = <u>200</u> UPL species <u>50</u> x 5 = <u>250</u> <b>Column Totals:</b> <u>100</u> (A) <u>450</u> (B)  Prevalence Index = B/A = <u>4.5</u>
1. Symphoricarpos orbiculatus	100	<input checked="" type="checkbox"/>	100.0% NI	
2. _____	0	<input type="checkbox"/>	0.0%	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
		<b>= Total Cover</b>		
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is > 50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Bromus inermis	50	<input checked="" type="checkbox"/>	50.0% UPL	
2. Taraxacum officinale	10	<input type="checkbox"/>	10.0% FACU	
3. Lolium perenne	30	<input checked="" type="checkbox"/>	30.0% FACU	
4. Trifolium repens	10	<input type="checkbox"/>	10.0% FACU	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
		<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
		<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

**Soil**

Sampling Point: 142-57-19-3

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	2/1	100%				Silt Loam	

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

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

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

(MLRA 72 and 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Water Table Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe)    Yes     No     Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photos

**Remarks:**

Non-wetland vegetative swale.



Location 142-57-19-3: Pit 05-18-10



Location 142-57-19-3: Pedon 05-18-10



Location 142-57-19-3: View North 05-18-10



Location 142-57-19-3: View South 05-18-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 18-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 142-57-19-4  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 19 T 142 R 57  
**Landform (hillslope, terrace, etc.):** Swale **Local relief (concave, convex, none):** concave **Slope:** 3.0% / 1.7 °  
**Subregion (LRR):** LRR F **Lat.:** 47.109281 **Long.:** -97.955986 **Datum:** NAD 83

**Soil Map Unit Name:** Barnes-Sioux loams, 0 to 6 percent slopes **NWI classification:** PEMA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/> <b>Hydric Soil Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Wetland Hydrology Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

**Dominant Species?** FWS Region:

Stratum	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)
1. _____	0	<input type="checkbox"/>	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
2. _____	0	<input type="checkbox"/>	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b>
1. Symphoricarpos orbiculatus	100	<input checked="" type="checkbox"/>	100.0% NI	Total % Cover of: Multiply by:
2. _____	0	<input type="checkbox"/>	0.0%	OBL species <u>0</u> x 1 = <u>0</u>
3. _____	0	<input type="checkbox"/>	0.0%	FACW species <u>0</u> x 2 = <u>0</u>
4. _____	0	<input type="checkbox"/>	0.0%	FAC species <u>0</u> x 3 = <u>0</u>
5. _____	0	<input type="checkbox"/>	0.0%	FACU species <u>60</u> x 4 = <u>240</u>
	100	<b>= Total Cover</b>		UPL species <u>40</u> x 5 = <u>200</u>
<b>Herb Stratum</b> (Plot size: _____)				<b>Column Totals:</b> <u>100</u> (A) <u>440</u> (B)
1. Bromus inermis	40	<input checked="" type="checkbox"/>	40.0% UPL	Prevalence Index = B/A = <u>4.4</u>
2. Taraxacum officinale	30	<input checked="" type="checkbox"/>	30.0% FACU	
3. Lolium perenne	30	<input checked="" type="checkbox"/>	30.0% FACU	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation  
 2 - Dominance Test is > 50%  
 3 - Prevalence Index is ≤ 3.0<sup>1</sup>  
 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.

**Hydrophytic Vegetation Present?** Yes  No

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

**Soil**

Sampling Point: 142-57-19-4

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	2/1	100%				Silt Loam	

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

Remarks:  
 Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Water Table Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe)    Yes     No     Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photos

Remarks:  
 Non-wetland vegetative swale.



Location 142-57-19-4: Pit 05-18-10



Location 142-57-19-4: Pedon 05-18-10

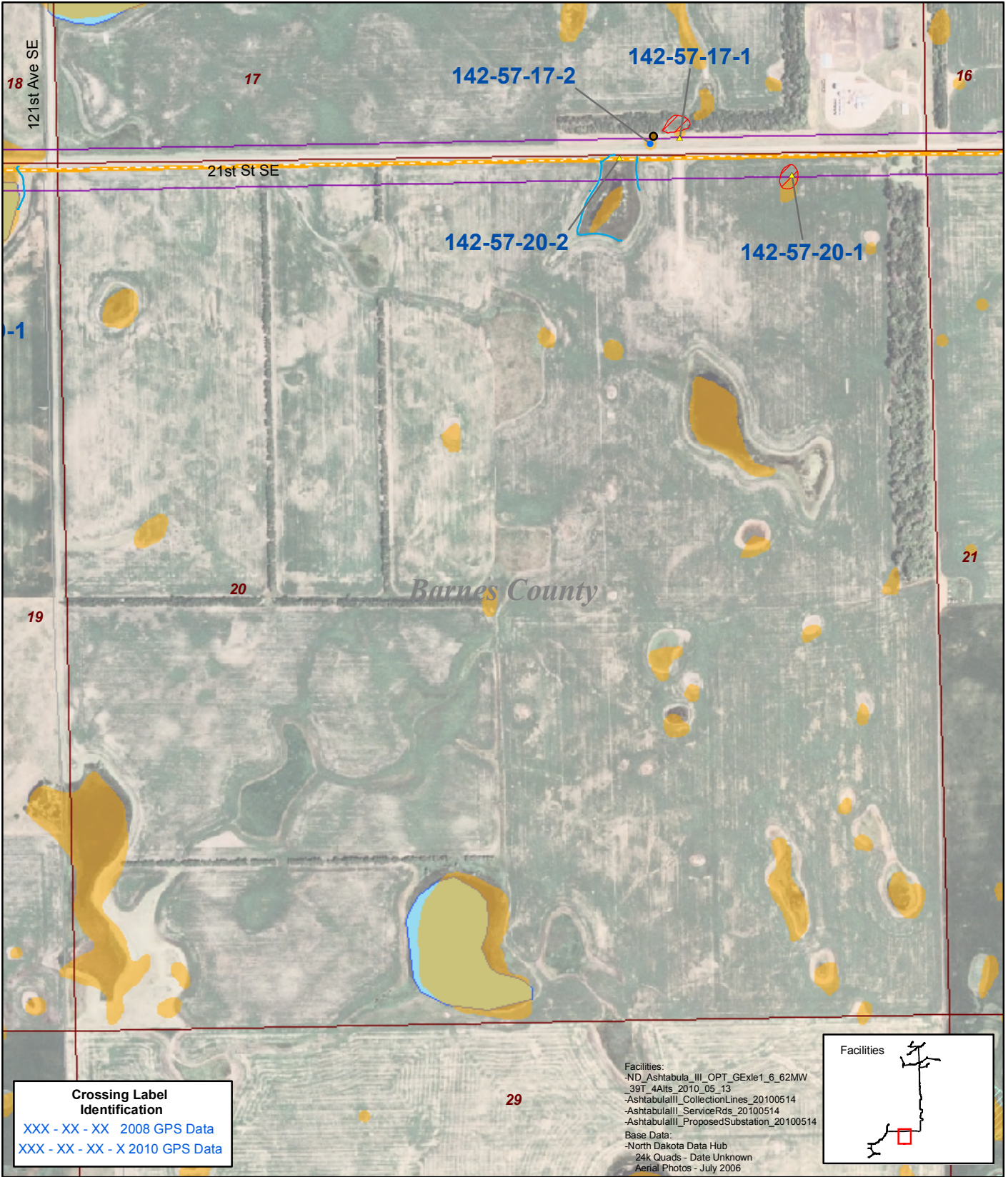


Location 142-57-19-4: View North 05-18-10



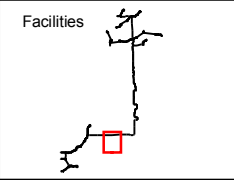
Location 142-57-19-4: View South 05-18-10

**TOWNSHIP 142N**  
**RANGE 57W**  
**SECTION 20**



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

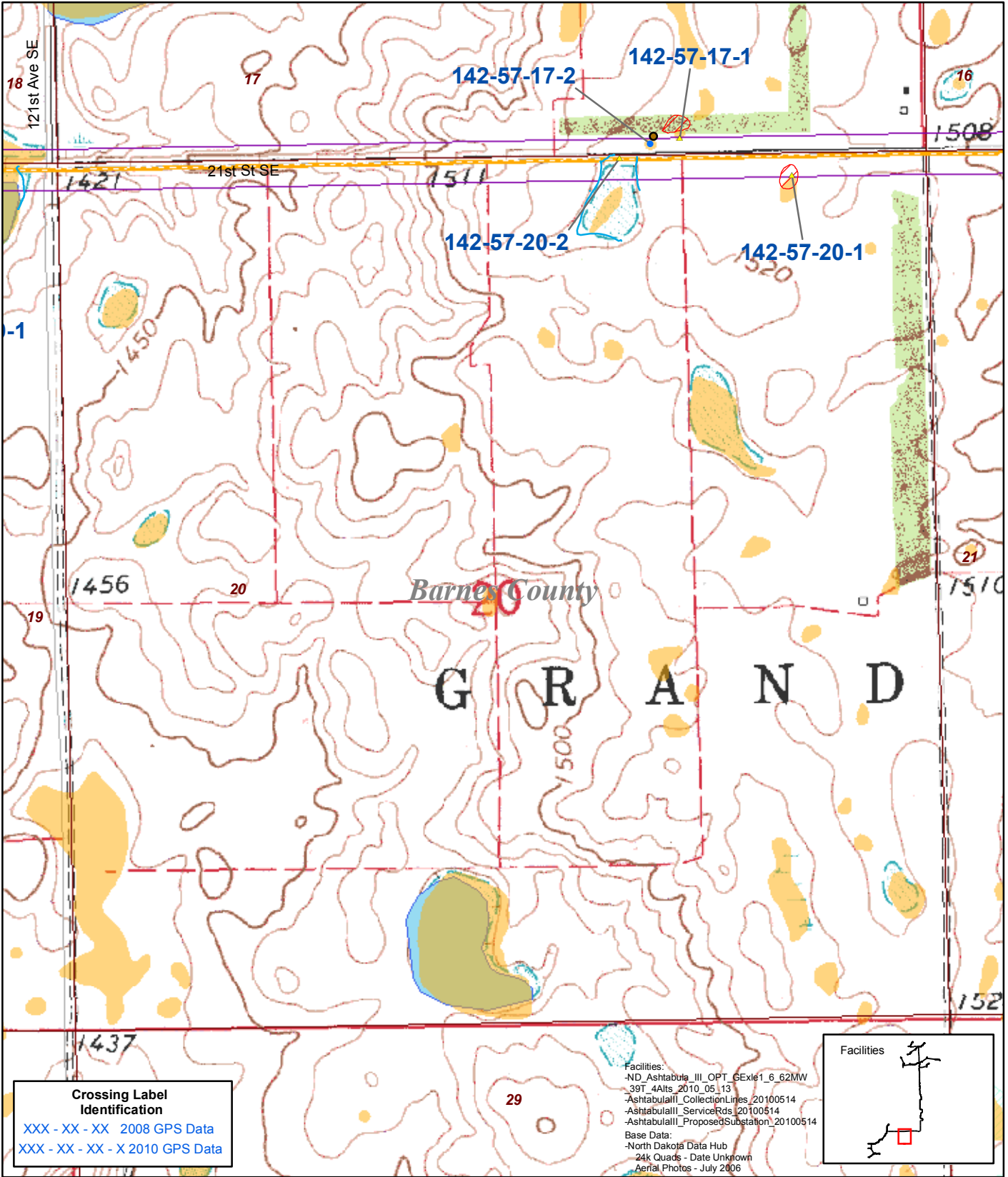
Facilities:  
 -ND\_AshTabula\_III\_OPT\_GExle1\_6\_62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
 Base Data:  
 -North Dakota Data Hub  
 24k Quads - Date Unknown  
 Aerial Photos - July 2006



- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ■ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                         |
| ▲ USFWS Easement                      | — Collector              | □ Township                        |
| Wetland                               | — Service Road           | □ County                          |
| RPW Boundary                          | ■ Substation             | □ USFWS Wetland Easement          |
| Wetland Boundary                      | ■ Area of Investigation  | □ USFWS Easement                  |
|                                       | ■ Lake/Pond              | ■ USFWS Waterfowl Production Area |

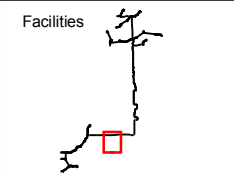
June 28, 2010  
 Ashtabula III  
 Wind Energy Center  
 Barnes County, North Dakota

T142N  
 R57W  
 Section 20



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

Facilities:  
 -ND\_AshTabula\_III\_OPT\_GExle1\_6\_62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
 Base Data:  
 -North Dakota Data Hub  
 -24K Quads - Date Unknown  
 -Aerial Photos - July 2006



- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ■ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                         |
| ▲ USFWS Easement                      | ● Collector              | □ Township                        |
| Wetland                               | — Service Road           | □ County                          |
| RPW Boundary                          | ■ Substation             | □ USFWS Wetland Easement          |
| Wetland Boundary                      | □ Area of Investigation  | □ USFWS Easement                  |
|                                       | ● Lake/Pond              | ■ USFWS Waterfowl Production Area |

June 28, 2010  
 Ashtabula III  
 Wind Energy Center  
 Barnes County, North Dakota

T142N  
 R57W  
 Section 20

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 18-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 142-57-20-1  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 20 T 142 R 57  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.109260 **Long.:** -97.921173 **Datum:** NAD 83  
**Soil Map Unit Name:** Barnes-Svea loams, 3 to 6 percent slopes **NWI classification:** PEMA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation  , Soil  , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation  , Soil  , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>2</u> (A)
1. _____	0	<input type="checkbox"/>	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
2. _____	0	<input type="checkbox"/>	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b>
1. _____	0	<input type="checkbox"/>	_____	Total % Cover of: _____ Multiply by: _____
2. _____	0	<input type="checkbox"/>	_____	OBL species <u>80</u> x 1 = <u>80</u>
3. _____	0	<input type="checkbox"/>	_____	FACW species <u>20</u> x 2 = <u>40</u>
4. _____	0	<input type="checkbox"/>	_____	FAC species <u>0</u> x 3 = <u>0</u>
5. _____	0	<input type="checkbox"/>	_____	FACU species <u>0</u> x 4 = <u>0</u>
	0	<b>= Total Cover</b>		UPL species <u>0</u> x 5 = <u>0</u>
<b>Herb Stratum</b> (Plot size: _____)				<b>Column Totals:</b> <u>100</u> (A) <u>120</u> (B)
1. Typha angustifolia	70	<input checked="" type="checkbox"/>	70.0% OBL	Prevalence Index = B/A = <u>1.2</u>
2. Phalaris arundinacea	20	<input checked="" type="checkbox"/>	20.0% FACW+	
3. Carex aquatilis	10	<input type="checkbox"/>	10.0% OBL	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Hydrophytic Vegetation Indicators:**  
 1 - Rapid Test for Hydrophytic Vegetation  
 2 - Dominance Test is > 50%  
 3 - Prevalence Index is ≤ 3.0<sup>1</sup>  
 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes  No

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: View North (Page 1), View South (Page 1)

**Soil**

Sampling Point: 142-57-20-1

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		

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

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

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

(MLRA 72 and 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Soil profile not investigated. Listed as hydric by the NRCS.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches):   2    
 Water Table Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Saturation Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photos

**Remarks:**

Isolated wetland - possesses no discreet or confined surface or shallow subsurface connection to a tributary stream eventually flowing into a navigable water of the United States. Therefore, this wetland is not hydrologically connected to a water of the United States.



Location 142-57-20-1: View North 05-18-10



Location 142-57-20-1: South 05-18-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 18-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 142-57-20-2  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 20 T 142 R 57  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.109577 **Long.:** -97.925397 **Datum:** NAD 83

**Soil Map Unit Name:** Vallery-Parnell complex, 0 to 1 percent slopes **NWI classification:** PEMA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Hydric Soil Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Wetland Hydrology Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants** Dominant Species? FWS Region:

Tree Stratum (Plot size: _____)	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
1. _____	0	<input type="checkbox"/>	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
			<b>= Total Cover</b>	
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>100</u> x 1 = <u>100</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> <b>Column Totals:</b> <u>100</u> (A) <u>100</u> (B)  Prevalence Index = B/A = <u>1</u>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
			<b>= Total Cover</b>	
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is > 50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Typha angustifolia	80	<input checked="" type="checkbox"/>	80.0% OBL	
2. Carex aquatilis	20	<input checked="" type="checkbox"/>	20.0% OBL	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
			<b>= Total Cover</b>	
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
			<b>= Total Cover</b>	
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: View Southeast (Page 1), View South (Page 1)

**Soil**

Sampling Point: 142-57-20-2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |
|--|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)                 |
| <input type="checkbox"/> Coastal Prairie Redox (A16) (LRR F, G, H) |
| <input type="checkbox"/> Dark Surface (S7) (LRR G)                 |
| <input type="checkbox"/> High Plains Depressions (F16)             |
| <b>(LRR H outside of MLRA 72 and 73)</b>                           |
| <input type="checkbox"/> Reduced Vertic (F18)                      |
| <input type="checkbox"/> Red Parent Material (TF2)                 |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12)          |
| <input type="checkbox"/> Other (Explain in Remarks)                |
- <sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks:

Soil profile not investigated. Listed as hydric by the NRCS.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Surface Soil Cracks (B6)                   |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)    |
| <input checked="" type="checkbox"/> Drainage Patterns (B10)         |
| <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |
| <b>(where tilled)</b>   |
| <input type="checkbox"/> Crayfish Burrows (C8)                      |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  |
| <input type="checkbox"/> Geomorphic Position (D2)                   |
| <input checked="" type="checkbox"/> FAC-neutral Test (D5)           |
| <input type="checkbox"/> Frost Heave Hummocks (D7) (LRR F)          |

**Field Observations:**

Surface Water Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>10</u>
Water Table Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____

Wetland Hydrology Present? Yes  No

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

Aerial Photos

Remarks:

Isolated wetland - possesses no discreet or confined surface or shallow subsurface connection to a tributary stream eventually flowing into a navigable water of the United States. Therefore, this wetland is not hydrologically connected to a water of the United States.

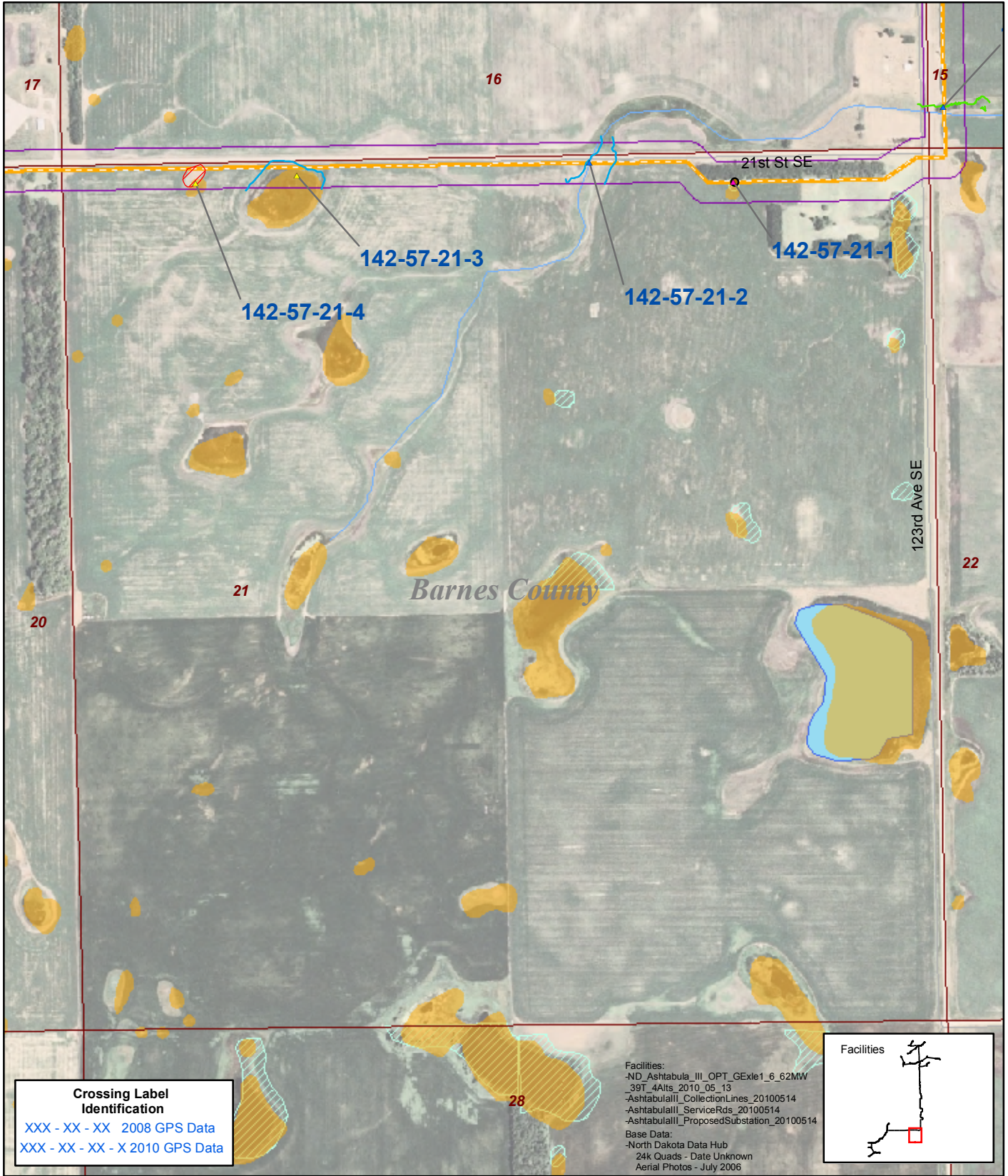


Location 142-57-20-2: View South 05-18-10



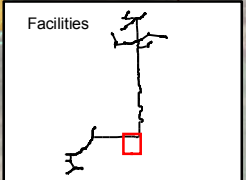
Location 142-57-20-2: View Southeast 05-18-10

**TOWNSHIP 142N**  
**RANGE 57W**  
**SECTION 21**



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

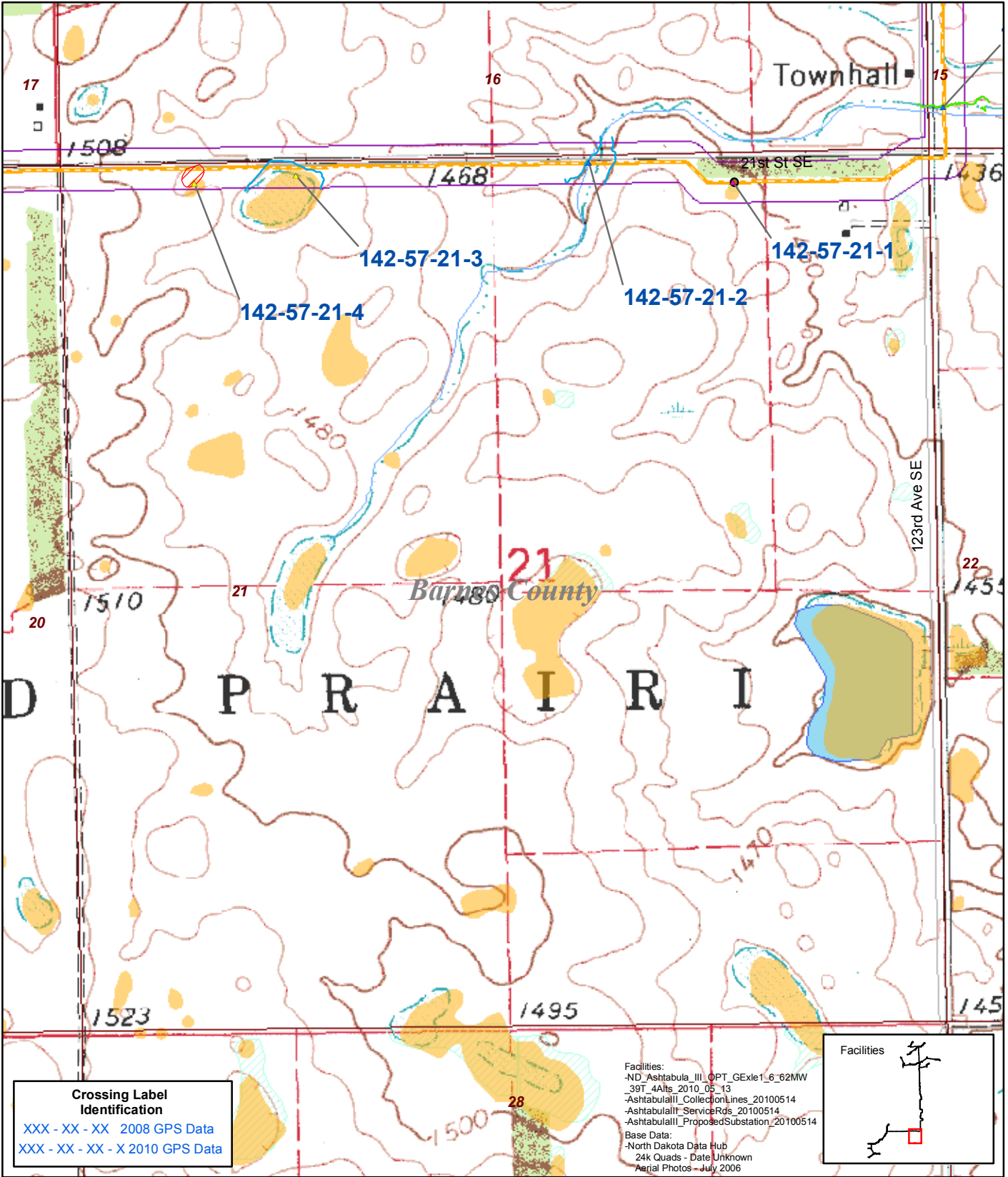
**Facilities:**  
 -ND\_AshTabula\_III\_OPT\_GExle1\_6\_62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
**Base Data:**  
 -North Dakota Data Hub  
 24k Quads - Date Unknown  
 Aerial Photos - July 2006



- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ■ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                         |
| ▲ USFWS Easement                      | — Collector              | □ Township                        |
| Wetland                               | — Service Road           | □ County                          |
| RPW Boundary                          | ■ Substation             | □ USFWS Wetland Easement          |
| Wetland Boundary                      | ■ Area of Investigation  | □ USFWS Easement                  |
|                                       | ■ Lake/Pond              | ■ USFWS Waterfowl Production Area |

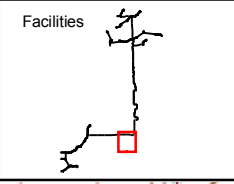
June 28, 2010  
 Ashtabula III  
 Wind Energy Center  
 Barnes County, North Dakota

**T142N  
 R57W  
 Section 21**



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

**Facilities:**  
 -ND\_AshTabula\_III\_OPT\_GE1x1.6\_62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
**Base Data:**  
 -North Dakota Data Hub  
 24K Quads - Date Unknown  
 Aerial Photos - July 2006



- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ○ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                         |
| ▲ USFWS Easement                      | — Collector              | □ Township                        |
| ○ Wetland                             | — Service Road           | □ County                          |
| — RPW Boundary                        | □ Substation             | □ USFWS Wetland Easement          |
| — Wetland Boundary                    | □ Area of Investigation  | □ USFWS Easement                  |
|                                       | □ Lake/Pond              | □ USFWS Waterfowl Production Area |

June 28, 2010  
 Ashtabula III  
 Wind Energy Center  
 Barnes County, North Dakota  
**T142N  
 R57W  
 Section 21**

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 18-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 142-57-21-1  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 21 T 142 R 57  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 1.0% / 0.6 °  
**Subregion (LRR):** LRR F **Lat.:** 47.109228 **Long.:** -97.901473 **Datum:** NAD 83

**Soil Map Unit Name:** Hamerly-Tonka complex 0 to 3 percent slopes **NWI classification:** PEMA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation  , Soil  , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation  , Soil  , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)
1. _____	0	<input type="checkbox"/>		Total Number of Dominant Species Across All Strata: <u>1</u> (B)
2. _____	0	<input type="checkbox"/>		Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b>
1. _____	0	<input type="checkbox"/>		Total % Cover of: _____ Multiply by: _____
2. _____	0	<input type="checkbox"/>		OBL species <u>0</u> x 1 = <u>0</u>
3. _____	0	<input type="checkbox"/>		FACW species <u>0</u> x 2 = <u>0</u>
4. _____	0	<input type="checkbox"/>		FAC species <u>0</u> x 3 = <u>0</u>
5. _____	0	<input type="checkbox"/>		FACU species <u>0</u> x 4 = <u>0</u>
	0	<b>= Total Cover</b>		UPL species <u>100</u> x 5 = <u>500</u>
				<b>Column Totals:</b> <u>100</u> (A) <u>500</u> (B)
<b>Herb Stratum</b> (Plot size: _____)				Prevalence Index = B/A = <u>5</u>
1. Zea mays	100	<input checked="" type="checkbox"/>	100.0% UPL	
2. _____	0	<input type="checkbox"/>	0.0%	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b>
1. _____	0	<input type="checkbox"/>		<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. _____	0	<input type="checkbox"/>		<input type="checkbox"/> 2 - Dominance Test is > 50%
	0	<b>= Total Cover</b>		<input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>
				<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
				<input checked="" type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>

**Remarks:**  
 Vegetation dominated by non-hydrophytes. However, if allowed to revert to a natural state, hydrophytic vegetation would dominate.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

**Soil**

Sampling Point: 142-57-21-1

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	2/1	100%				Silt Loam	

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Water Table Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe)    Yes     No     Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photos

**Remarks:**

Seasonally Farmed USFWS Wetland - possesses no discreet or confined surface or shallow subsurface connection to a tributary stream eventually flowing into a navigable water of the United States. Therefore, this wetland is not hydrologically connected to a water of the United States. It is however, under easement with the USFWS.



Location 142-57-21-1: Pit 05-18-10



Location 142-57-21-1: Pedon 05-18-10



Location 142-57-21-1: View North 05-18-10



Location 142-57-21-1: View South 05-18-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 18-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 142-57-21-2  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 21 T 142 R 57  
**Landform (hillslope, terrace, etc.):** Channel (abandoned) **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.109580 **Long.:** -97.904987 **Datum:** NAD 83

**Soil Map Unit Name:** Hamerly-Tonka complex 0 to 3 percent slopes **NWI classification:** N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Hydric Soil Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Wetland Hydrology Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

**Dominant Species?** FWS Region:

Stratum	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>30</u> x 1 = <u>30</u> FACW species <u>70</u> x 2 = <u>140</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> <b>Column Totals:</b> <u>100</u> (A) <u>170</u> (B)  Prevalence Index = B/A = <u>1.7</u>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
5. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is > 50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Typha angustifolia	30	<input checked="" type="checkbox"/>	30.0% OBL	
2. Phalaris arundinacea	50	<input checked="" type="checkbox"/>	50.0% FACW+	
3. Spartina pectinata	20	<input checked="" type="checkbox"/>	20.0% FACW	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: View North (Page 1), View North (Page 1), View South (Page 2), View South (Page 2)

**Soil**

Sampling Point: 142-57-21-2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Soil profile not investigated. Listed as hydric by the NRCS.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches):   2  

Water Table Present?    Yes     No     Depth (inches): \_\_\_\_\_

Saturation Present? (includes capillary fringe)    Yes     No     Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photos

**Remarks:**

Wetland - possesses a discreet or confined surface or shallow subsurface connection to a tributary stream eventually flowing into a navigable water of the United States. Therefore, the wetland is hydrologically connected to a water of the United States.



Location 142-57-21-2: View North 05-18-10



Location 142-57-21-2: View South 05-18-10



Location 142-57-21-2: View North 05-18-10



Location 142-57-21-2: View South 05-18-10

## WETLAND DETERMINATION DATA FORM - Great Plains Region

**Project/Site:** Ashtabula 3 Wind Energy Center      **City/County:** Barnes      **Sampling Date:** 18-May-10  
**Applicant/Owner:** NextEra      **State:** ND      **Sampling Point:** 142-57-21-3  
**Investigator(s):** MRE/CAY      **Section, Township, Range:** S 21      T 142      R 57  
**Landform (hillslope, terrace, etc.):** Pothole      **Local relief (concave, convex, none):** concave      **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F      **Lat.:** 47.109434      **Long.:** -97.912142      **Datum:** NAD 83  
**Soil Map Unit Name:** Parnell silty clay loam, 0 to 1 percent slopes      **NWI classification:** PEMA

**Are climatic/hydrologic conditions on the site typical for this time of year?**      Yes  No       (If no, explain in Remarks.)  
**Are Vegetation**  , **Soil**  , **or Hydrology**  **significantly disturbed?**      **Are "Normal Circumstances" present?**      Yes  No   
**Are Vegetation**  , **Soil**  , **or Hydrology**  **naturally problematic?**      (If needed, explain any answers in Remarks.)

### Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Hydric Soil Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Wetland Hydrology Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

### VEGETATION - Use scientific names of plants Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of:      Multiply by: OBL species <u>80</u> x 1 = <u>80</u> FACW species <u>20</u> x 2 = <u>40</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> <b>Column Totals:</b> <u>100</u> (A) <u>120</u> (B)  Prevalence Index = B/A = <u>1.2</u>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
5. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is > 50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Typha angustifolia	60	<input checked="" type="checkbox"/>	60.0% OBL	
2. Phalaris arundinacea	20	<input checked="" type="checkbox"/>	20.0% FACW+	
3. Carex aquatilis	20	<input checked="" type="checkbox"/>	20.0% OBL	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: View North (Page 1), View South (Page 1)

Soil

Sampling Point: 142-57-21-3

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		

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

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

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

(MLRA 72 and 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks:

Soil profile not investigated. Listed as hydric by the NRCS.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches): 6

Water Table Present? Yes  No  Depth (inches): \_\_\_\_\_

Saturation Present? (includes capillary fringe) Yes  No  Depth (inches): \_\_\_\_\_

Wetland Hydrology Present? Yes  No

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

Aerial Photos

Remarks:

Isolated wetland - possesses no discreet or confined surface or shallow subsurface connection to a tributary stream eventually flowing into a navigable water of the United States. Therefore, this wetland is not hydrologically connected to a water of the United States.



Location 142-57-21-3: View North 05-18-10



Location 142-57-21-3: View South 05-18-19

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 18-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 142-57-21-4  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 21 T 142 R 57  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.109329 **Long.:** -97.914623 **Datum:** NAD 83  
**Soil Map Unit Name:** Barnes-Buse loams, 3 to 6 percent slopes **NWI classification:** PEMA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants** Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A)
1. _____	0	<input type="checkbox"/>	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
2. _____	0	<input type="checkbox"/>	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b>
1. _____	0	<input type="checkbox"/>	_____	Total % Cover of: _____ Multiply by: _____
2. _____	0	<input type="checkbox"/>	_____	OBL species <u>80</u> x 1 = <u>80</u>
3. _____	0	<input type="checkbox"/>	_____	FACW species <u>20</u> x 2 = <u>40</u>
4. _____	0	<input type="checkbox"/>	_____	FAC species <u>0</u> x 3 = <u>0</u>
5. _____	0	<input type="checkbox"/>	_____	FACU species <u>0</u> x 4 = <u>0</u>
	0	<b>= Total Cover</b>		UPL species <u>0</u> x 5 = <u>0</u>
<b>Herb Stratum</b> (Plot size: _____)				<b>Column Totals:</b> <u>100</u> (A) <u>120</u> (B)
1. Eleocharis acicularis	50	<input checked="" type="checkbox"/>	50.0% OBL	Prevalence Index = B/A = <u>1.2</u>
2. Phalaris arundinacea	20	<input checked="" type="checkbox"/>	20.0% FACW+	
3. Carex aquatilis	30	<input checked="" type="checkbox"/>	30.0% OBL	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation  
 2 - Dominance Test is > 50%  
 3 - Prevalence Index is ≤ 3.0<sup>1</sup>  
 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.

**Hydrophytic Vegetation Present?** Yes  No

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: View North (Page 1), View South (Page 1)

**Soil**

Sampling Point: 142-57-21-4

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		

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

<p><b>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</b></p> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR F) <input type="checkbox"/> 1 cm Muck (A9) (LRR F,G,H) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Muck Mineral (S1) <input type="checkbox"/> 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR F)	<input type="checkbox"/> Sandy Gleyed Matrix S4 <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox depressions (F8) <input type="checkbox"/> High Plains Depressions (F16)	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b></p> <input type="checkbox"/> 1 cm Muck (A9) (LRR I, J) <input type="checkbox"/> Coastal Prairie Redox (A16) (LRR F, G, H) <input type="checkbox"/> Dark Surface (S7) (LRR G) <input type="checkbox"/> High Plains Depressions (F16) <p style="text-align: center;"><b>(LRR H outside of MLRA 72 and 73)</b></p> <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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**(MLRA 72 and 73 of LRR H)**

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<p><b>Restrictive Layer (if present):</b></p> Type: _____ Depth (inches): _____	<p><b>Hydric Soil Present?</b>    Yes <input checked="" type="radio"/>    No <input type="radio"/></p>
<p>Remarks: Soil profile not investigated. Listed as hydric by the NRCS.</p>	

**Hydrology**

<p><b>Wetland Hydrology Indicators:</b></p> <p>Primary Indicators (minimum of one required; check all that apply)</p> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input checked="" type="checkbox"/> Drift deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Dry Season Water Table (C2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<p>Secondary Indicators (minimum of two required)</p> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <p style="text-align: center;"><b>(where tilled)</b></p> <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> FAC-neutral Test (D5) <input type="checkbox"/> Frost Heave Hummocks (D7) (LRR F)
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<p><b>Field Observations:</b></p> Surface Water Present?    Yes <input checked="" type="radio"/> No <input type="radio"/> Depth (inches): <u>3</u> Water Table Present?    Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____ Saturation Present? (includes capillary fringe)    Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____	<p><b>Wetland Hydrology Present?</b>    Yes <input checked="" type="radio"/>    No <input type="radio"/></p>
---	--

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

Aerial Photos

Remarks:  
Isolated wetland - possesses no discreet or confined surface or shallow subsurface connection to a tributary stream eventually flowing into a navigable water of the United States. Therefore, this wetland is not hydrologically connected to a water of the United States.

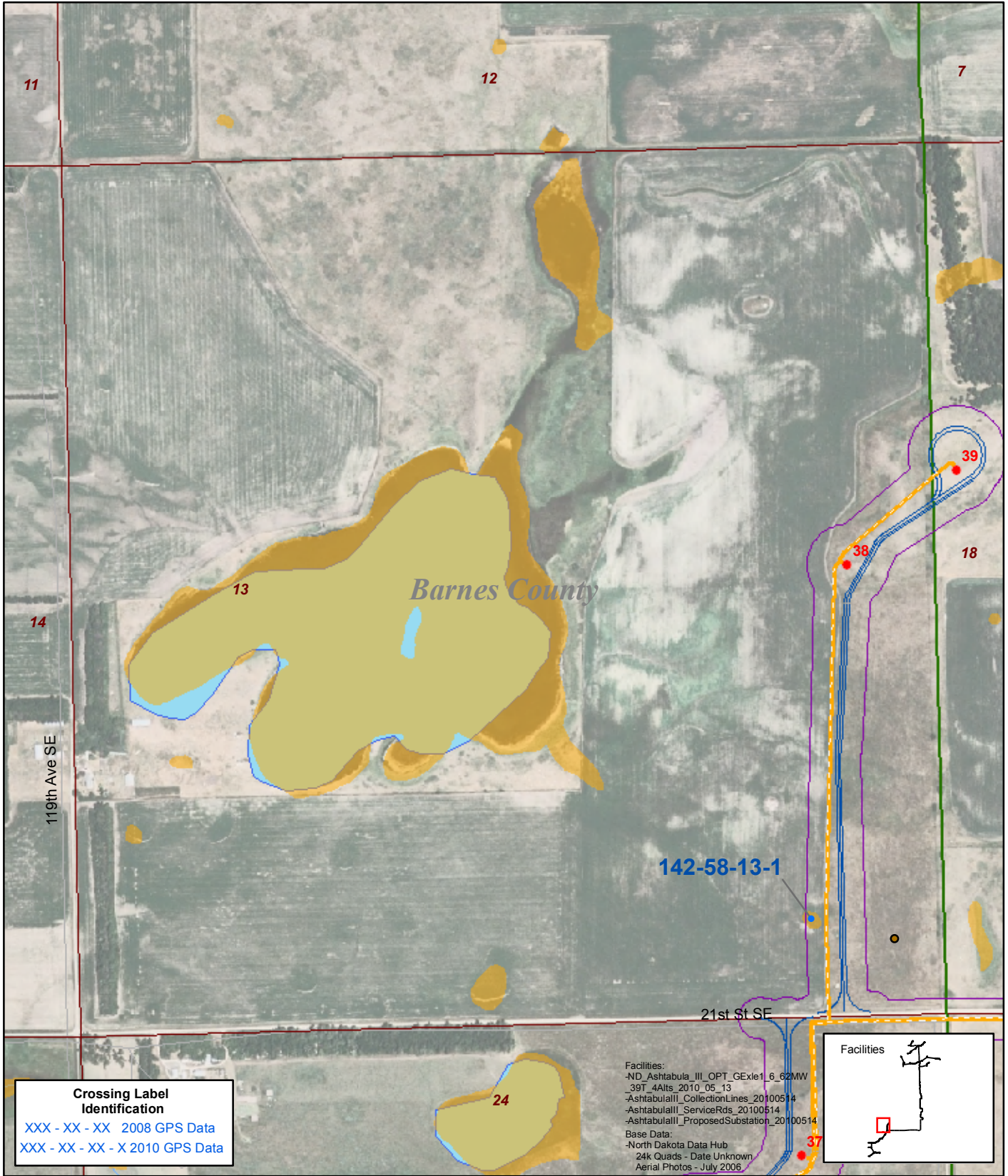


Location 142-57-21-4: View North 05-18-10



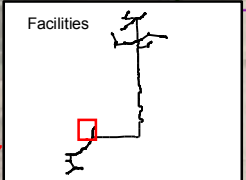
Location 142-57-21-4: View South 05-18-10

**TOWNSHIP 142N**  
**RANGE 58W**  
**SECTION 13**



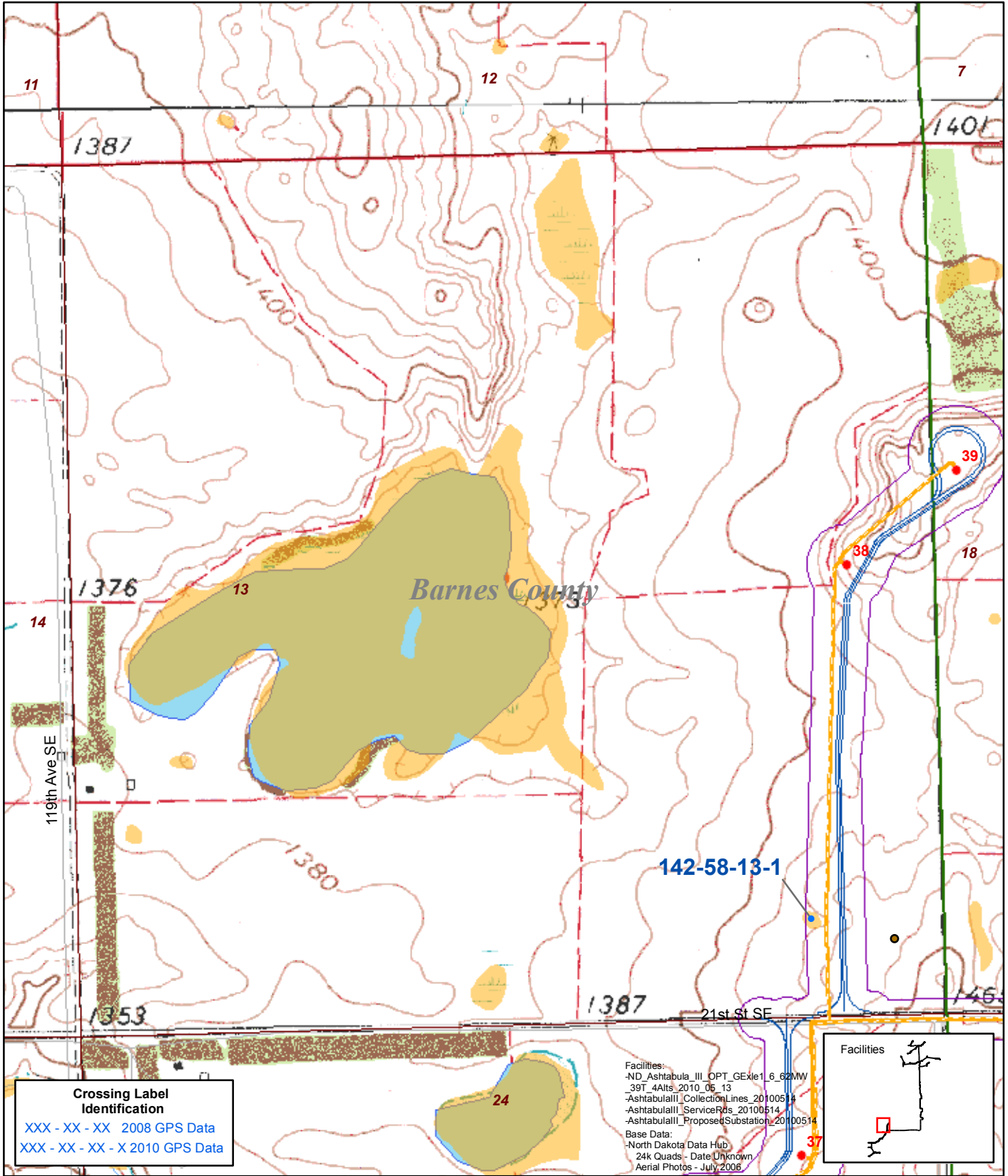
**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

Facilities:  
 -ND\_AshTabula\_III\_OPT\_GExle1\_6\_62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
 Base Data:  
 -North Dakota Data Hub  
 -24K Quads - Date Unknown  
 -Aerial Photos - July 2006



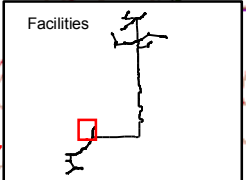
- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ○ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                         |
| ▲ USFWS Easement                      | — Collector              | □ Township                        |
| Wetland                               | — Service Road           | □ County                          |
| RPW Boundary                          | ■ Substation             | □ USFWS Wetland Easement          |
| Wetland Boundary                      | □ Area of Investigation  | □ USFWS Easement                  |
|                                       | ● Lake/Pond              | ■ USFWS Waterfowl Production Area |

June 28, 2010  
 Ashtabula III  
 Wind Energy Center  
 Barnes County, North Dakota  
**T142N  
 R58W  
 Section 13**



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

Facilities:  
 -ND\_Ashtabula\_III\_OPT\_GEXie1\_6\_62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
 Base Data:  
 -North Dakota Data Hub  
 -24K Quads - Date Unknown  
 -Aerial Photos - July 2006



- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ○ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                         |
| ▲ USFWS Easement                      | — Collector              | □ Township                        |
| Wetland                               | — Service Road           | □ County                          |
| RPW Boundary                          | □ Substation             | □ USFWS Wetland Easement          |
| Wetland Boundary                      | □ Area of Investigation  | □ USFWS Easement                  |
|                                       | □ Lake/Pond              | □ USFWS Waterfowl Production Area |

June 28, 2010  
 Ashtabula III  
 Wind Energy Center  
 Barnes County, North Dakota  
**T142N  
 R58W  
 Section 13**

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 18-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 142-58-13-1  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 13 T 142 R 58  
**Landform (hillslope, terrace, etc.):** Swale **Local relief (concave, convex, none):** concave **Slope:** 3.0% / 1.7 °  
**Subregion (LRR):** LRR F **Lat.:** 47.111305 **Long.:** -97.963833 **Datum:** NAD 83  
**Soil Map Unit Name:** Barnes-Buse loams, 3 to 6 percent slopes **NWI classification:** PEMC

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants** Dominant Species? FWS Region:

Tree Stratum (Plot size: _____)	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
1. _____	0	<input type="checkbox"/>	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
			<b>= Total Cover</b>	
<b>Sapling/Shrub Stratum (Plot size: _____)</b>				
1. _____	0	<input type="checkbox"/>	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>40</u> x 4 = <u>160</u> UPL species <u>70</u> x 5 = <u>350</u> <b>Column Totals:</b> <u>110</u> (A) <u>510</u> (B)  Prevalence Index = B/A = <u>4.636</u>
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
			<b>= Total Cover</b>	
<b>Herb Stratum (Plot size: _____)</b>				
1. Bromus inermis	20	<input checked="" type="checkbox"/>	18.2% UPL	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is > 50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
2. Trifolium repens	10	<input type="checkbox"/>	9.1% FACU	
3. Lolium perenne	20	<input checked="" type="checkbox"/>	18.2% FACU	
4. Taraxacum officinale	10	<input type="checkbox"/>	9.1% FACU	
5. Zea mays	50	<input checked="" type="checkbox"/>	45.5% UPL	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
			<b>= Total Cover</b>	
<b>Woody Vine Stratum (Plot size: _____)</b>				
1. _____	0	<input type="checkbox"/>	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
2. _____	0	<input type="checkbox"/>	_____	
			<b>= Total Cover</b>	
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View East (Page 2), View West (Page 2)

**Soil**

Sampling Point: 142-58-13-1

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-1	10YR	3/1	100%				Silt Loam	
1-16	10YR	2/1	100%				Silt Loam	

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |
|--|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)                 |
| <input type="checkbox"/> Coastal Prairie Redox (A16) (LRR F, G, H) |
| <input type="checkbox"/> Dark Surface (S7) (LRR G)                 |
| <input type="checkbox"/> High Plains Depressions (F16)             |
| <b>(LRR H outside of MLRA 72 and 73)</b>                           |
| <input type="checkbox"/> Reduced Vertic (F18)                      |
| <input type="checkbox"/> Red Parent Material (TF2)                 |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12)          |
| <input type="checkbox"/> Other (Explain in Remarks)                |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Surface Soil Cracks (B6)                   |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)    |
| <input checked="" type="checkbox"/> Drainage Patterns (B10)         |
| <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |
| <b>(where tilled)</b>   |
| <input type="checkbox"/> Crayfish Burrows (C8)                      |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  |
| <input type="checkbox"/> Geomorphic Position (D2)                   |
| <input type="checkbox"/> FAC-neutral Test (D5)                      |
| <input type="checkbox"/> Frost Heave Hummocks (D7) (LRR F)          |

**Field Observations:**

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

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photos

**Remarks:**

Non-wetland vegetative swale.



Location 142-58-13-1: Pit 05-18-10



Location 142-58-13-1: Pedon 05-18-10

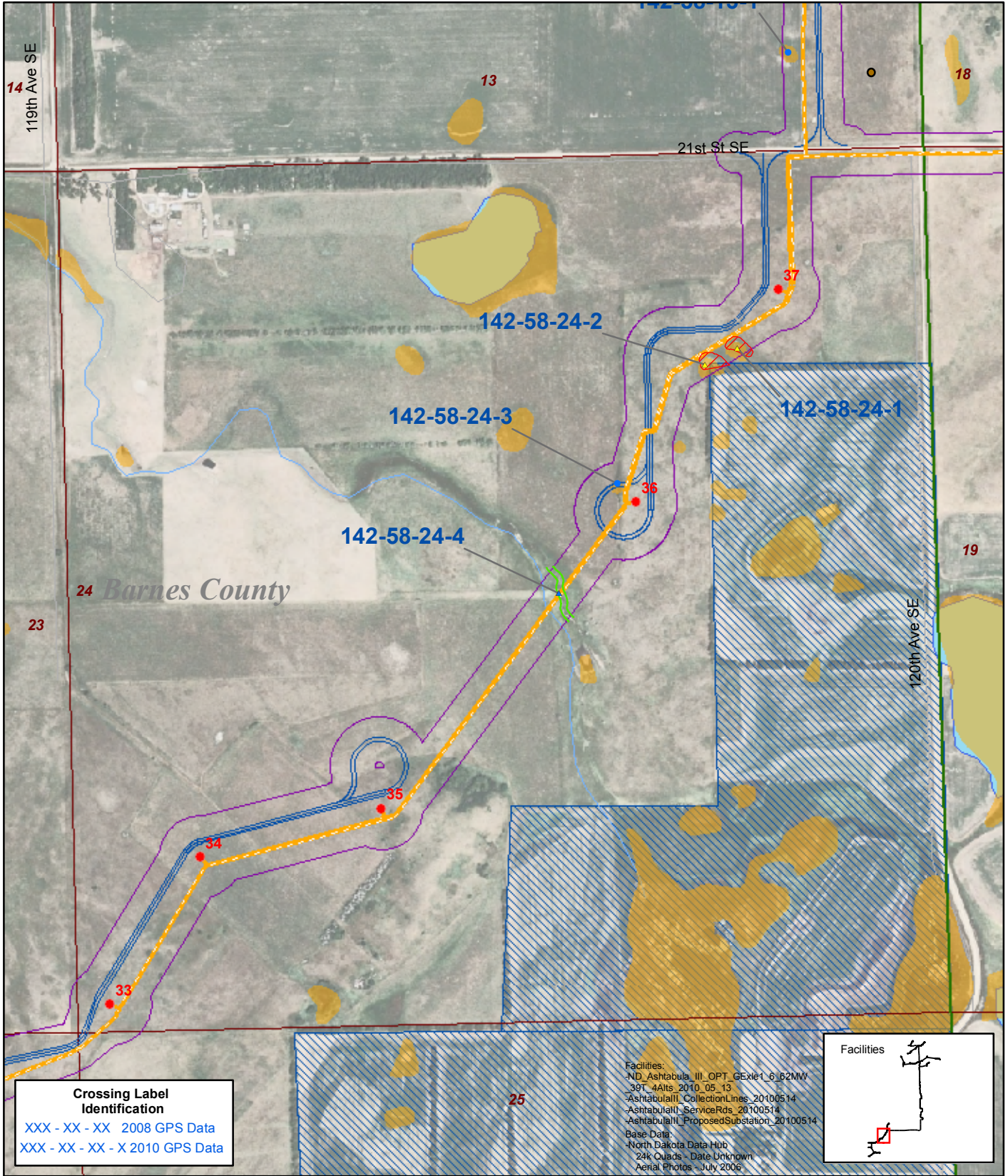


Location 142-58-13-1: View East 05-18-10



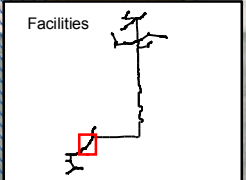
Location 142-58-13-1: View West 05-18-10

**TOWNSHIP 142N**  
**RANGE 58W**  
**SECTION 24**



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

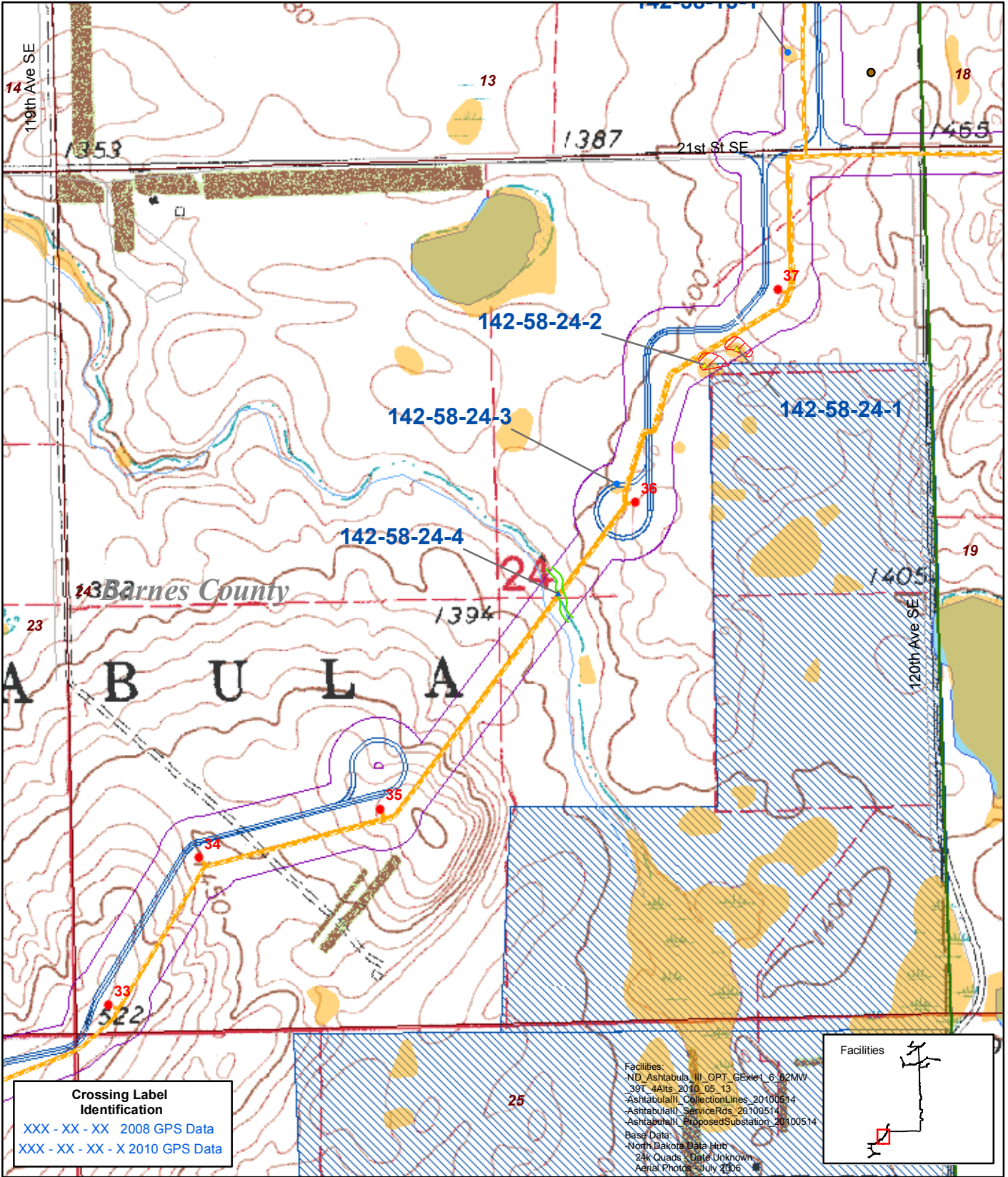
**Facilities:**  
 -ND\_AshTabula\_III\_OPT\_GEX14\_6\_62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
**Base Data:**  
 -North Dakota Data Hub  
 -24K Quads - Date Unknown  
 -Aerial Photos - July 2006



- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ○ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                         |
| ▲ USFWS Easement                      | — Collector              | □ Township                        |
| Wetland                               | — Service Road           | □ County                          |
| RPW Boundary                          | □ Substation             | □ USFWS Wetland Easement          |
| Wetland Boundary                      | □ Area of Investigation  | □ USFWS Easement                  |
|                                       | □ Lake/Pond              | □ USFWS Waterfowl Production Area |

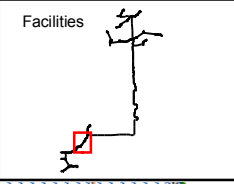
June 28, 2010  
**Ashtabula III  
 Wind Energy Center**  
 Barnes County, North Dakota

**T142N  
 R58W  
 Section 24**



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

Facilities:  
 -ND\_AshTabula\_III\_OPT\_GEM16.62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
 Base Data:  
 -North Dakota Data Hub  
 -24K Quads - Date Unknown  
 -Aerial Photos - July 2006



- Crossing Location
- ▲ Non-Jurisdictional Isolated Wetland
- ▲ USACE Jurisdictional
- ▲ USACE/USFWS Jurisdictional
- ▲ USFWS Easement
- Wetland
- RPW Boundary
- Wetland Boundary
- Culvert
- Non-Wetland Data Point
- Wetland Data Point
- Turbine
- Collector
- Service Road
- Substation
- Area of Investigation
- Lake/Pond
- River/Stream
- Road
- NWI Area
- Section
- Township
- County
- USFWS Wetland Easement
- USFWS Easement
- USFWS Waterfowl Production Area

June 28, 2010  
**Ashtabula III**  
**Wind Energy Center**  
 Barnes County, North Dakota  
T142N  
R58W  
Section 24

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 18-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 142-58-24-1  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 24 T 142 R 58  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 3.0% / 1.7 °  
**Subregion (LRR):** LRR F **Lat.:** 47.106392 **Long.:** -97.965173 **Datum:** NAD 83  
**Soil Map Unit Name:** Barnes-Buse loams, 6 to 9 percent slopes **NWI classification:** PEMC

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Hydric Soil Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Wetland Hydrology Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

**Dominant Species?** FWS Region:

Stratum	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>70</u> x 1 = <u>70</u> FACW species <u>30</u> x 2 = <u>60</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> <b>Column Totals:</b> <u>100</u> (A) <u>130</u> (B)  Prevalence Index = B/A = <u>1.3</u>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is > 50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Phalaris arundinacea	30	<input checked="" type="checkbox"/>	30.0% FACW+	
2. Carex aquatilis	20	<input checked="" type="checkbox"/>	20.0% OBL	
3. Lemna minor	50	<input checked="" type="checkbox"/>	50.0% OBL	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: View North (Page 1), View South (Page 1)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

**Soil**

Sampling Point: 142-58-24-1

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		

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

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

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                             | <input type="checkbox"/> Sandy Gleyed Matrix (S4)      |
| <input type="checkbox"/> Histic Epipedon (A2)                      | <input type="checkbox"/> Sandy Redox (S5)              |
| <input type="checkbox"/> Black Histic (A3)                         | <input type="checkbox"/> Stripped Matrix (S6)          |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                     | <input type="checkbox"/> Loamy Mucky Mineral (F1)      |
| <input type="checkbox"/> Stratified Layers (A5) (LRR F)            | <input type="checkbox"/> Loamy Gleyed Matrix (F2)      |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR F,G,H)                | <input type="checkbox"/> Depleted Matrix (F3)          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)         | <input type="checkbox"/> Redox Dark Surface (F6)       |
| <input type="checkbox"/> Thick Dark Surface (A12)                  | <input type="checkbox"/> Depleted Dark Surface (F7)    |
| <input type="checkbox"/> Sandy Muck Mineral (S1)                   | <input type="checkbox"/> Redox depressions (F8)        |
| <input type="checkbox"/> 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) | <input type="checkbox"/> High Plains Depressions (F16) |
| <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR F)      |  |

(MLRA 72 and 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes  No

**Remarks:**

Soil profile not investigated. Listed as hydric by the NRCS.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches): 2

Water Table Present? Yes  No  Depth (inches): \_\_\_\_\_

Saturation Present? (includes capillary fringe) Yes  No  Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes  No

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

Aerial Photos

**Remarks:**

Isolated Wetland - possesses no discreet or confined surface or shallow subsurface connection to a tributary stream eventually flowing into a navigable water of the United States. Therefore, this wetland is not hydrologically connected to a water of the United States.



Location 142-58-24-1: View North 05-18-10



Location 142-58-24-1: View South 05-18-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 18-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 142-58-24-2  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 24 T 142 R 58  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.106120 **Long.:** -97.965963 **Datum:** NAD 83  
**Soil Map Unit Name:** Barnes-Buse loams, 6 to 9 percent slopes **NWI classification:** PEMC

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Hydric Soil Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Wetland Hydrology Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants** Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>60</u> x 1 = <u>60</u> FACW species <u>40</u> x 2 = <u>80</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> <b>Column Totals:</b> <u>100</u> (A) <u>140</u> (B)  Prevalence Index = B/A = <u>1.4</u>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is > 50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Typha angustifolia	20	<input checked="" type="checkbox"/>	20.0% OBL	
2. Phalaris arundinacea	40	<input checked="" type="checkbox"/>	40.0% FACW+	
3. Carex aquatilis	10	<input type="checkbox"/>	10.0% OBL	
4. Lemna minor	30	<input checked="" type="checkbox"/>	30.0% OBL	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: View North (Page 1), View South (Page 1)

**Soil**

**Sampling Point: 142-58-24-2**

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Soil profile not investigated. Listed as hydric by the NRCS.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>  2  </u>
Water Table Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photos

**Remarks:**

Isolated Wetland - possesses no discreet or confined surface or shallow subsurface connection to a tributary stream eventually flowing into a navigable water of the United States. Therefore, this wetland is not hydrologically connected to a water of the United States.



Location 142-58-24-2: View North 05-18-10



Location 142-58-24-2: View South 05-18-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 18-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 142-58-24-3  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 24 T 142 R 58  
**Landform (hillslope, terrace, etc.):** Swale **Local relief (concave, convex, none):** concave **Slope:** 1.0% / 0.6 °  
**Subregion (LRR):** LRR F **Lat.:** 47.104154 **Long.:** -97.968146 **Datum:** NAD 83

**Soil Map Unit Name:** Gardena-Zell silt loams, 2 to 6 percent slopes **NWI classification:** PEMA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants** Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>100</u> x 5 = <u>500</u> Column Totals: <u>100</u> (A) <u>500</u> (B)  Prevalence Index = B/A = <u>5</u>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
5. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is > 50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Zea mays	100	<input checked="" type="checkbox"/>	100.0% UPL	
2. _____	0	<input type="checkbox"/>	0.0%	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: View West (Page 1), View Northwest (Page 1)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

**Soil**

**Sampling Point: 142-58-24-3**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |  |
|--|--|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)                 |  |
| <input type="checkbox"/> Coastal Prairie Redox (A16) (LRR F, G, H) |  |
| <input type="checkbox"/> Dark Surface (S7) (LRR G)                 |  |
| <input type="checkbox"/> High Plains Depressions (F16)             |  |
| <b>(LRR H outside of MLRA 72 and 73)</b>                           |  |
| <input type="checkbox"/> Reduced Vertic (F18)                      |  |
| <input type="checkbox"/> Red Parent Material (TF2)                 |  |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12)          |  |
| <input type="checkbox"/> Other (Explain in Remarks)                |  |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

Remarks:  
 Soil profile not investigated. Listed as non-hydric by the NRCS.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

- |   |  |
|---|--|
| <input type="checkbox"/> Surface Soil Cracks (B6)                   |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)    |  |
| <input type="checkbox"/> Drainage Patterns (B10)                    |  |
| <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |  |
| <b>(where tilled)</b>   |  |
| <input type="checkbox"/> Crayfish Burrows (C8)                      |  |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  |  |
| <input type="checkbox"/> Geomorphic Position (D2)                   |  |
| <input type="checkbox"/> FAC-neutral Test (D5)                      |  |
| <input type="checkbox"/> Frost Heave Hummocks (D7) (LRR F)          |  |

**Field Observations:**

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

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photos

Remarks:  
 Farmed Swale.



Location 142-58-24-3: View Northwest 05-18-10



Location 142-58-24-3: View West 05-18-10

**SEE APPENDIX B  
FOR  
LOCATION 142-58-24-4  
JURISDICTIONAL  
DETERMINATION  
FORM**

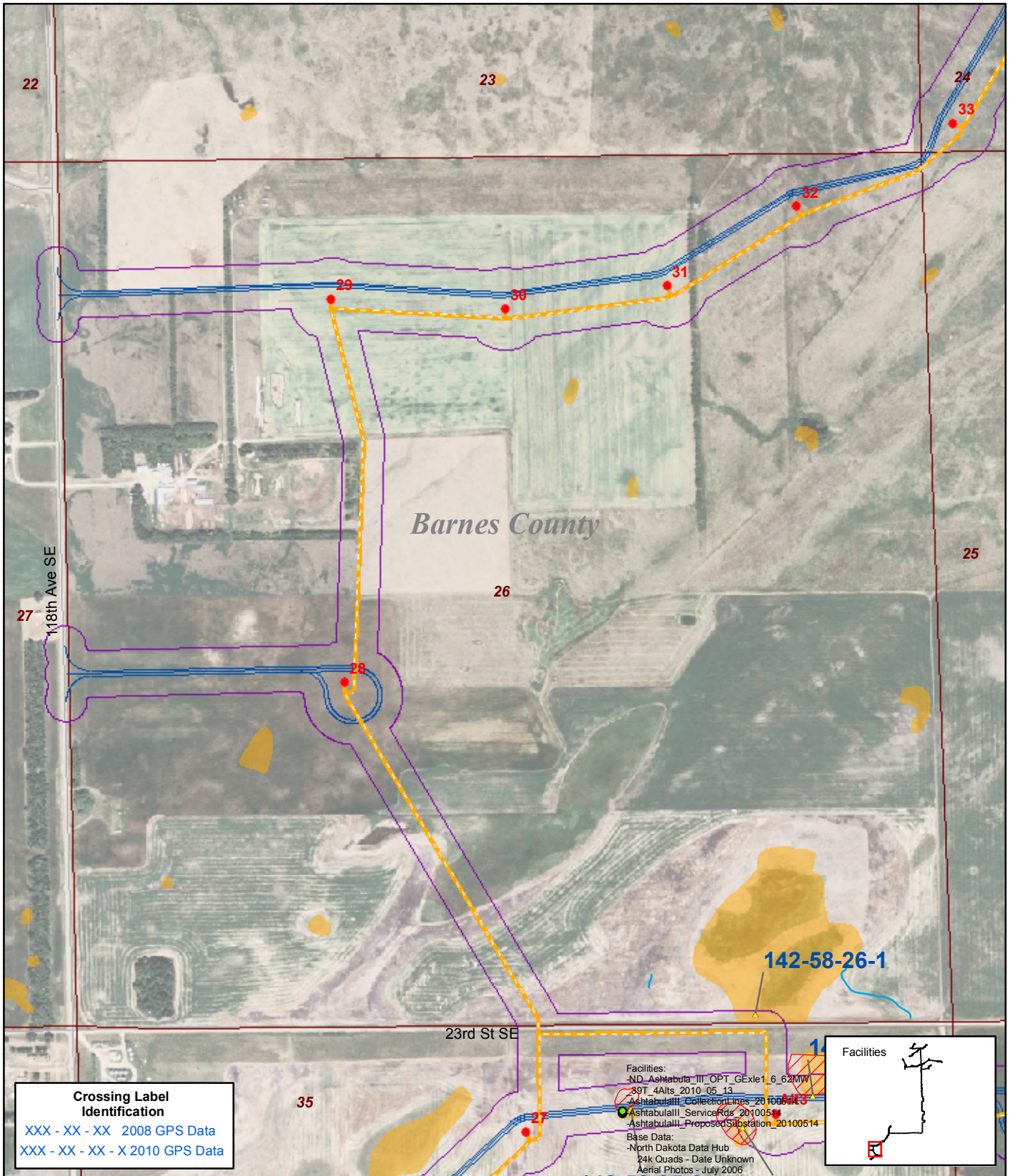


Location 142-58-24-4: View North 05-18-10



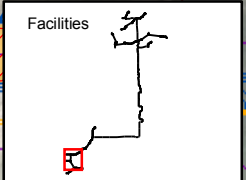
Location 142-58-24-4: View South 05-18-10

**TOWNSHIP 142N**  
**RANGE 58W**  
**SECTION 26**



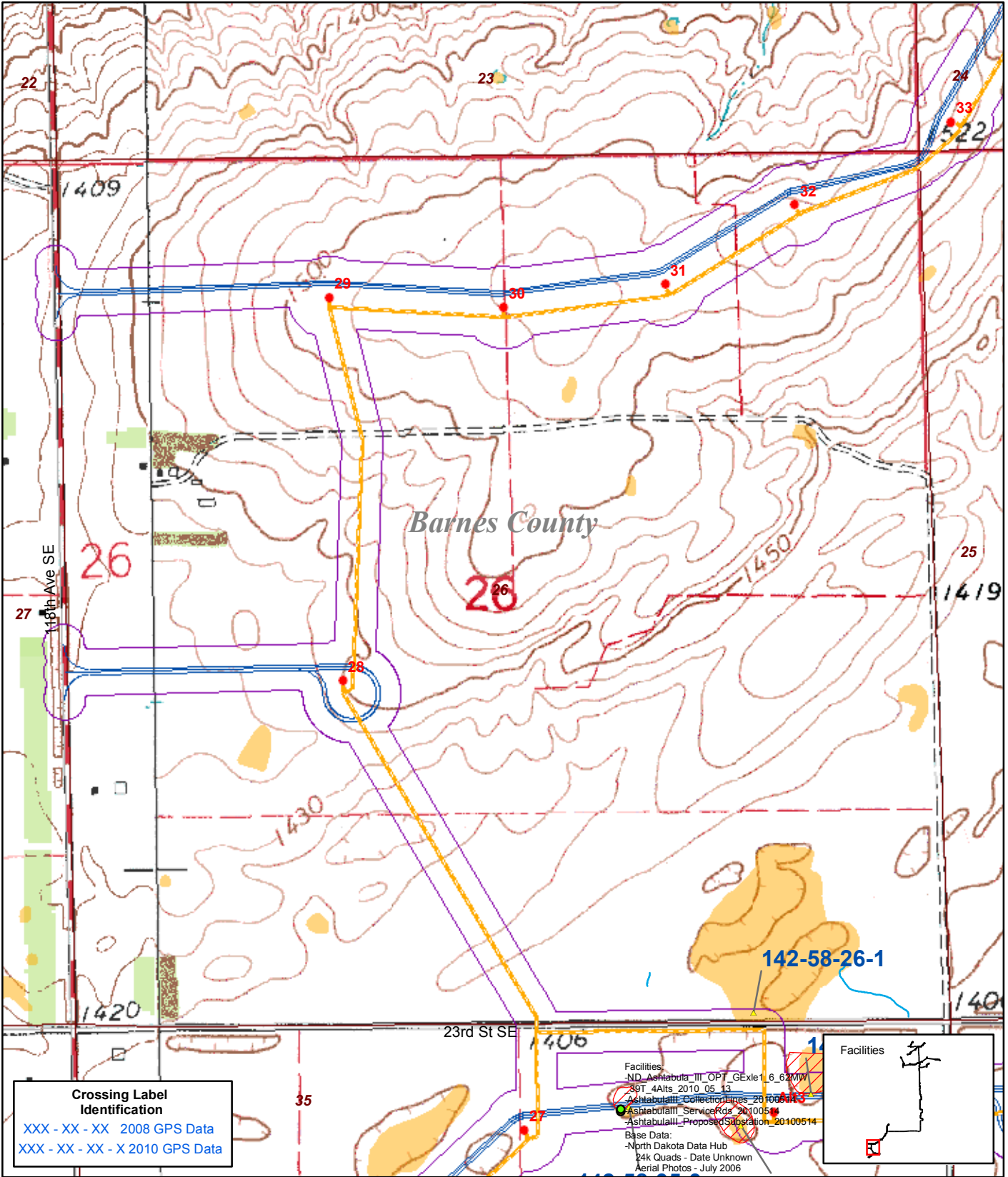
**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

Facilities:  
 -ND\_Ashabula\_III\_OPT\_GE16\_62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
 Base Data:  
 -North Dakota Data Hub  
 -24k Quads - Date Unknown  
 -Aerial Photos - July 2006



- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ○ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                         |
| ▲ USFWS Easement                      | — Collector              | □ Township                        |
| Wetland                               | — Service Road           | □ County                          |
| RPW Boundary                          | □ Substation             | □ USFWS Wetland Easement          |
| Wetland Boundary                      | □ Area of Investigation  | □ USFWS Easement                  |
|                                       | □ Lake/Pond              | □ USFWS Waterfowl Production Area |

June 28, 2010  
**Ashtabula III**  
**Wind Energy Center**  
 Barnes County, North Dakota  
**T142N**  
**R58W**  
**Section 26**



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

TETRA TECH NEXTERA ENERGY

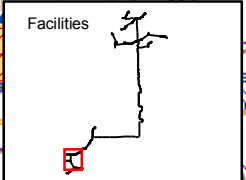
● Crossing Location	● Culvert	~ River/Stream
▲ Non-Jurisdictional Isolated Wetland	● Non-Wetland Data Point	— Road
▲ USACE Jurisdictional	● Wetland Data Point	■ NWI Area
▲ USACE/USFWS Jurisdictional	● Turbine	□ Section
▲ USFWS Easement	— Collector	□ Township
Wetland	— Service Road	□ County
RPW Boundary	■ Substation	□ USFWS Wetland Easement
Wetland Boundary	□ Area of Investigation	□ USFWS Easement
	□ Lake/Pond	■ USFWS Waterfowl Production Area

June 28, 2010  
 Ashtabula III  
 Wind Energy Center  
 Barnes County, North Dakota

**T142N  
 R58W  
 Section 26**

Facilities  
 -ND Ashtabula III OPT\_GExlet\_6.62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100511RS  
 -AshtabulaIII\_ServiceRds\_20100511RS  
 -AshtabulaIII\_ProposedSubstation\_20100514

Base Data:  
 -North Dakota Data Hub  
 -24K Quads - Date Unknown  
 -Aerial Photos - July 2006



**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 18-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 142-58-26-1  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 26 T 142 R 58  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.080778 **Long.:** -97.985813 **Datum:** NAD 83  
**Soil Map Unit Name:** Bearden silty clay loam, 0 to 2 percent slopes **NWI classification:** PEMA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Hydric Soil Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Wetland Hydrology Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

**Dominant Species?** FWS Region:

Stratum	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>4</u> (A)
1. _____	0	<input type="checkbox"/>	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
2. _____	0	<input type="checkbox"/>	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b>
1. _____	0	<input type="checkbox"/>	_____	Total % Cover of: _____ Multiply by: _____
2. _____	0	<input type="checkbox"/>	_____	<b>OBL species</b> <u>40</u> x <u>1</u> = <u>40</u>
3. _____	0	<input type="checkbox"/>	_____	<b>FACW species</b> <u>30</u> x <u>2</u> = <u>60</u>
4. _____	0	<input type="checkbox"/>	_____	<b>FAC species</b> <u>20</u> x <u>3</u> = <u>60</u>
5. _____	0	<input type="checkbox"/>	_____	<b>FACU species</b> <u>0</u> x <u>4</u> = <u>0</u>
	0	<b>= Total Cover</b>		<b>UPL species</b> <u>10</u> x <u>5</u> = <u>50</u>
<b>Herb Stratum</b> (Plot size: _____)				<b>Column Totals:</b> <u>100</u> (A) <u>210</u> (B)
1. Typha angustifolia	20	<input checked="" type="checkbox"/>	20.0% OBL	Prevalence Index = B/A = <u>2.1</u>
2. Phalaris arundinacea	30	<input checked="" type="checkbox"/>	30.0% FACW+	
3. Glycine max	10	<input type="checkbox"/>	10.0% UPL	
4. Polygonum amphibium	20	<input checked="" type="checkbox"/>	20.0% OBL	
5. Panicum virgatum	20	<input checked="" type="checkbox"/>	20.0% FAC	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Hydrophytic Vegetation Indicators:**  
 1 - Rapid Test for Hydrophytic Vegetation  
 2 - Dominance Test is > 50%  
 3 - Prevalence Index is ≤ 3.0<sup>1</sup>  
 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.

**Hydrophytic Vegetation Present?** Yes  No

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: View Northeast (Page 1), View Northwest (Page 1)

**Soil**

**Sampling Point: 142-58-26-1**

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |  |
|--|--|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)                 |  |
| <input type="checkbox"/> Coastal Prairie Redox (A16) (LRR F, G, H) |  |
| <input type="checkbox"/> Dark Surface (S7) (LRR G)                 |  |
| <input type="checkbox"/> High Plains Depressions (F16)             |  |
| <b>(LRR H outside of MLRA 72 and 73)</b>                           |  |
| <input type="checkbox"/> Reduced Vertic (F18)                      |  |
| <input type="checkbox"/> Red Parent Material (TF2)                 |  |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12)          |  |
| <input type="checkbox"/> Other (Explain in Remarks)                |  |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Soil profile not investigated. Listed as hydric by the NRCS.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Surface Soil Cracks (B6)        |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)    |  |
| <input type="checkbox"/> Drainage Patterns (B10)                    |  |
| <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |  |
| <b>(where tilled)</b>   |  |
| <input type="checkbox"/> Crayfish Burrows (C8)                      |  |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  |  |
| <input type="checkbox"/> Geomorphic Position (D2)                   |  |
| <input checked="" type="checkbox"/> FAC-neutral Test (D5)           |  |
| <input type="checkbox"/> Frost Heave Hummocks (D7) (LRR F)          |  |

**Field Observations:**

Surface Water Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>  3  </u>
Water Table Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photos

**Remarks:**

Isolated wetland - possesses no discreet or confined surface or shallow subsurface connection to a tributary stream eventually flowing into a navigable water of the United States. Therefore, this wetland is not hydrologically connected to a water of the United States.

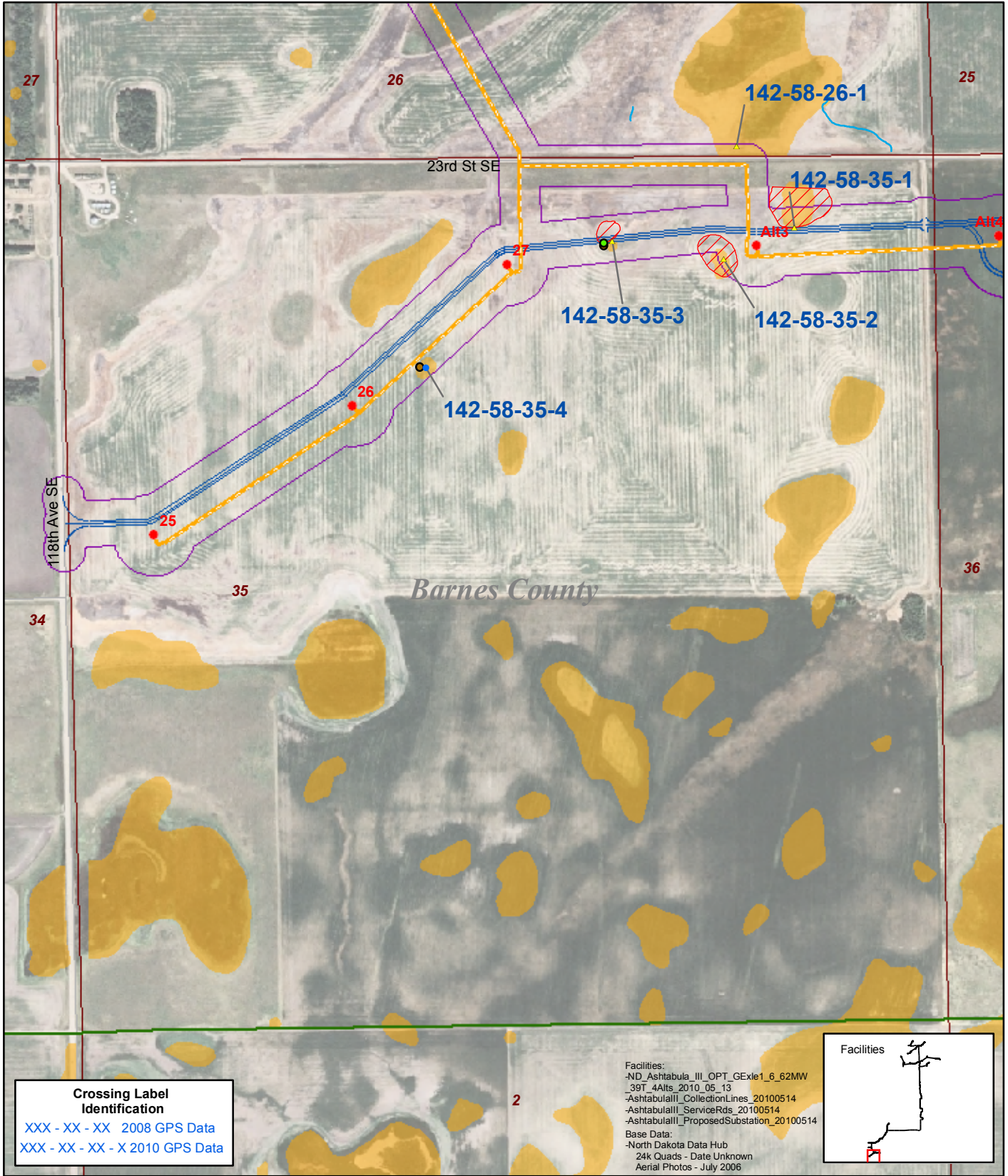


Location 142-58-26-1: View Northeast 05-18-10



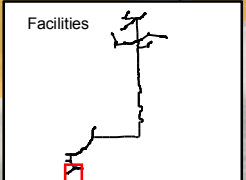
Location 142-58-26-1: View Northwest 05-18-10

**TOWNSHIP 142N**  
**RANGE 58W**  
**SECTION 35**



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

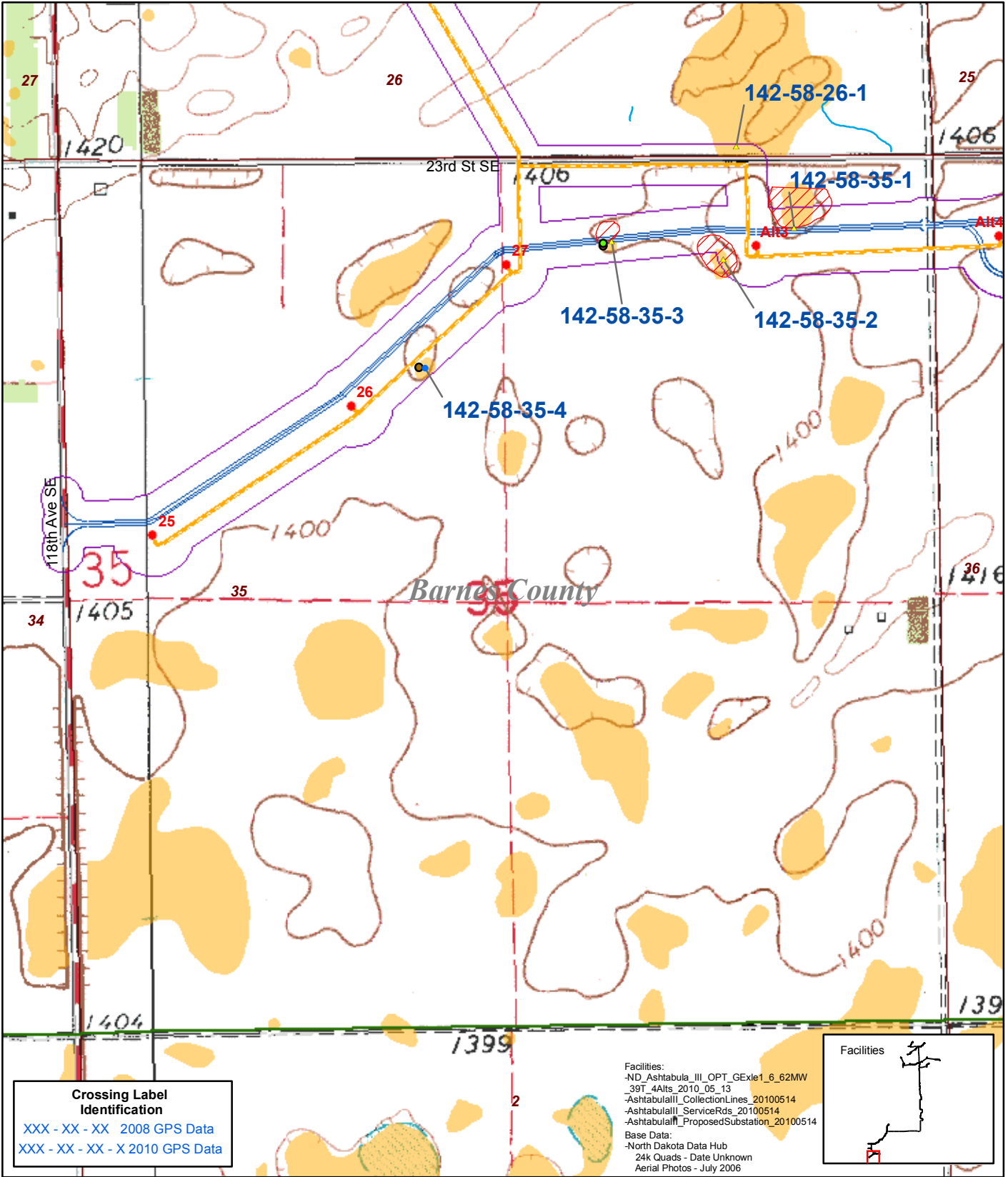
**Facilities:**  
 -ND\_AshTabula\_III\_OPT\_GExle1\_6\_62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
**Base Data:**  
 -North Dakota Data Hub  
 24K Quads - Date Unknown  
 Aerial Photos - July 2006



- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ■ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                         |
| ▲ USFWS Easement                      | — Collector              | □ Township                        |
| Wetland                               | — Service Road           | □ County                          |
| RPW Boundary                          | ■ Substation             | □ USFWS Wetland Easement          |
| Wetland Boundary                      | ■ Area of Investigation  | □ USFWS Easement                  |
|                                       | ■ Lake/Pond              | ■ USFWS Waterfowl Production Area |

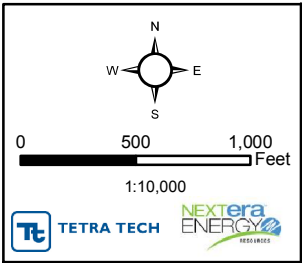
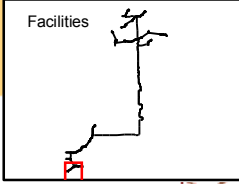
June 28, 2010  
 Ashtabula III  
 Wind Energy Center  
 Barnes County, North Dakota

**T142N  
 R58W  
 Section 35**



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

**Facilities:**  
 -ND\_AshTabula\_III\_OPT\_GExle1\_6\_62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
**Base Data:**  
 -North Dakota Data Hub  
 24K Quads - Date Unknown  
 Aerial Photos - July 2006



- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ■ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                         |
| ▲ USFWS Easement                      | — Collector              | □ Township                        |
| Wetland                               | — Service Road           | □ County                          |
| RPW Boundary                          | ■ Substation             | □ USFWS Wetland Easement          |
| Wetland Boundary                      | ■ Area of Investigation  | □ USFWS Easement                  |
|                                       | ■ Lake/Pond              | ■ USFWS Waterfowl Production Area |

June 28, 2010  
 Ashtabula III  
 Wind Energy Center  
 Barnes County, North Dakota

T142N  
 R58W  
 Section 35

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 18-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 142-58-35-1  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 35 T 142 R 58  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.079412 **Long.:** -97.984426 **Datum:** NAD 83

**Soil Map Unit Name:** Bearden silty clay loam, 0 to 2 percent slopes **NWI classification:** PEMA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants** Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)
1. _____	0	<input type="checkbox"/>	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)
2. _____	0	<input type="checkbox"/>	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b>
1. _____	0	<input type="checkbox"/>	_____	Total % Cover of: _____ Multiply by: _____
2. _____	0	<input type="checkbox"/>	_____	OBL species <u>20</u> x 1 = <u>20</u>
3. _____	0	<input type="checkbox"/>	_____	FACW species <u>10</u> x 2 = <u>20</u>
4. _____	0	<input type="checkbox"/>	_____	FAC species <u>0</u> x 3 = <u>0</u>
5. _____	0	<input type="checkbox"/>	_____	FACU species <u>0</u> x 4 = <u>0</u>
	0	<b>= Total Cover</b>		UPL species <u>70</u> x 5 = <u>350</u>
<b>Herb Stratum</b> (Plot size: _____)				<b>Column Totals:</b> <u>100</u> (A) <u>390</u> (B)
1. Typha angustifolia	10	<input type="checkbox"/>	10.0% OBL	Prevalence Index = B/A = <u>3.9</u>
2. Phalaris arundinacea	10	<input type="checkbox"/>	10.0% FACW+	
3. Carex aquatilis	10	<input type="checkbox"/>	10.0% OBL	
4. Glycine max	70	<input checked="" type="checkbox"/>	70.0% UPL	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation  
 2 - Dominance Test is > 50%  
 3 - Prevalence Index is ≤ 3.0<sup>1</sup>  
 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.

**Hydrophytic Vegetation Present?** Yes  No

**Remarks:**  
 Vegetation dominated by non-hydrophytes. However, if allowed to revert to a natural state, hydrophytic vegetation would dominate.  
 Photos: View North (Page 1), View South (Page 1)

**Soil**

**Sampling Point: 142-58-35-1**

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		

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

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

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

**(MLRA 72 and 73 of LRR H)**

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

Remarks:  
Soil profile not investigated. Listed as hydric by the NRCS.

**Hydrology**

<p><b>Wetland Hydrology Indicators:</b></p> <p>Primary Indicators (minimum of one required; check all that apply)</p> <table border="0"> <tr> <td><input checked="" type="checkbox"/> Surface Water (A1)</td> <td><input type="checkbox"/> Salt Crust (B11)</td> </tr> <tr> <td><input type="checkbox"/> High Water Table (A2)</td> <td><input type="checkbox"/> Aquatic Invertebrates (B13)</td> </tr> <tr> <td><input type="checkbox"/> Saturation (A3)</td> <td><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td><input checked="" type="checkbox"/> Water Marks (B1)</td> <td><input type="checkbox"/> Dry Season Water Table (C2)</td> </tr> <tr> <td><input type="checkbox"/> Sediment Deposits (B2)</td> <td><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</td> </tr> <tr> <td><input checked="" type="checkbox"/> Drift deposits (B3)</td> <td style="text-align: center;"><b>(where not tilled)</b></td> </tr> <tr> <td><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td><input type="checkbox"/> Presence of Reduced Iron (C4)</td> </tr> <tr> <td><input type="checkbox"/> Iron Deposits (B5)</td> <td><input type="checkbox"/> Thin Muck Surface (C7)</td> </tr> <tr> <td><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td><input type="checkbox"/> Water-Stained Leaves (B9)</td> <td></td> </tr> </table>	<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry Season Water Table (C2)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Drift deposits (B3)	<b>(where not tilled)</b>	<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Water-Stained Leaves (B9)		<p>Secondary Indicators (minimum of two required)</p> <table border="0"> <tr> <td><input checked="" type="checkbox"/> Surface Soil Cracks (B6)</td> </tr> <tr> <td><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> </tr> <tr> <td><input type="checkbox"/> Drainage Patterns (B10)</td> </tr> <tr> <td><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</td> </tr> <tr> <td style="text-align: center;"><b>(where tilled)</b></td> </tr> <tr> <td><input checked="" type="checkbox"/> Crayfish Burrows (C8)</td> </tr> <tr> <td><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</td> </tr> <tr> <td><input type="checkbox"/> Geomorphic Position (D2)</td> </tr> <tr> <td><input type="checkbox"/> FAC-neutral Test (D5)</td> </tr> <tr> <td><input type="checkbox"/> Frost Heave Hummocks (D7) (LRR F)</td> </tr> </table>	<input checked="" type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<b>(where tilled)</b>	<input checked="" type="checkbox"/> Crayfish Burrows (C8)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> FAC-neutral Test (D5)	<input type="checkbox"/> Frost Heave Hummocks (D7) (LRR F)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)																														
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Invertebrates (B13)																														
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)																														
<input checked="" type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry Season Water Table (C2)																														
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)																														
<input checked="" type="checkbox"/> Drift deposits (B3)	<b>(where not tilled)</b>																														
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)																														
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)																														
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)																														
<input type="checkbox"/> Water-Stained Leaves (B9)																															
<input checked="" type="checkbox"/> Surface Soil Cracks (B6)																															
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)																															
<input type="checkbox"/> Drainage Patterns (B10)																															
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)																															
<b>(where tilled)</b>																															
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<input type="checkbox"/> Geomorphic Position (D2)																															
<input type="checkbox"/> FAC-neutral Test (D5)																															
<input type="checkbox"/> Frost Heave Hummocks (D7) (LRR F)																															

**Field Observations:**

Surface Water Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>  6  </u>	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
Water Table Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	

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

Remarks:  
Isolated Farmed Wetland - possesses no discreet or confined surface or shallow subsurface connection to a tributary stream eventually flowing into a navigable water of the United States. Therefore, this wetland is not hydrologically connected to a water of the United States.



Location 142-58-35-1: View North 05-18-10



Location 142-58-35-1: View South 05-18-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 18-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 142-58-35-2  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 35 T 142 R 58  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.078898 **Long.:** -97.983158 **Datum:** NAD 83  
**Soil Map Unit Name:** Tonka silt loam, 0 to 1 percent slopes **NWI classification:** PEMA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants** Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>1</u> (A)
1. _____	0	<input type="checkbox"/>		Total Number of Dominant Species Across All Strata: <u>2</u> (B)
2. _____	0	<input type="checkbox"/>		Percent of dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b>
1. _____	0	<input type="checkbox"/>		Total % Cover of: Multiply by:
2. _____	0	<input type="checkbox"/>		OBL species <u>50</u> x 1 = <u>50</u>
3. _____	0	<input type="checkbox"/>		FACW species <u>0</u> x 2 = <u>0</u>
4. _____	0	<input type="checkbox"/>		FAC species <u>0</u> x 3 = <u>0</u>
5. _____	0	<input type="checkbox"/>		FACU species <u>0</u> x 4 = <u>0</u>
	0	<b>= Total Cover</b>		UPL species <u>50</u> x 5 = <u>250</u>
<b>Herb Stratum</b> (Plot size: _____)				<b>Column Totals:</b> <u>100</u> (A) <u>300</u> (B)
1. Glycine max	50	<input checked="" type="checkbox"/>	50.0% UPL	Prevalence Index = B/A = <u>3</u>
2. Carex aquatilis	50	<input checked="" type="checkbox"/>	50.0% OBL	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b>
1. _____	0	<input type="checkbox"/>		<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. _____	0	<input type="checkbox"/>		<input type="checkbox"/> 2 - Dominance Test is > 50%
	0	<b>= Total Cover</b>		<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
				<input checked="" type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>

**Remarks:**  
 Vegetation dominated by non-hydrophytes. However, if allowed to revert to a natural state, hydrophytic vegetation would dominate.  
 Photos: View North (Page 1), View South (Page 1)

**Soil**

Sampling Point: 142-58-35-2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |
|--|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)                 |
| <input type="checkbox"/> Coastal Prairie Redox (A16) (LRR F, G, H) |
| <input type="checkbox"/> Dark Surface (S7) (LRR G)                 |
| <input type="checkbox"/> High Plains Depressions (F16)             |
| <b>(LRR H outside of MLRA 72 and 73)</b>                           |
| <input type="checkbox"/> Reduced Vertic (F18)                      |
| <input type="checkbox"/> Red Parent Material (TF2)                 |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12)          |
| <input type="checkbox"/> Other (Explain in Remarks)                |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Soil profile not investigated. Listed as hydric by the NRCS.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Surface Soil Cracks (B6)                   |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)    |
| <input type="checkbox"/> Drainage Patterns (B10)                    |
| <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |
| <b>(where tilled)</b>   |
| <input type="checkbox"/> Crayfish Burrows (C8)                      |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  |
| <input type="checkbox"/> Geomorphic Position (D2)                   |
| <input type="checkbox"/> FAC-neutral Test (D5)                      |
| <input type="checkbox"/> Frost Heave Hummocks (D7) (LRR F)          |

**Field Observations:**

Surface Water Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>  2  </u>
Water Table Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photos

**Remarks:**

Isolated Farmed Wetland - possesses no discreet or confined surface or shallow subsurface connection to a tributary stream eventually flowing into a navigable water of the United States. Therefore, this wetland is not hydrologically connected to a water of the United States.



Location 142-58-35-2: View North 05-18-10



Location 142-58-35-2: View South 05-18-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 18-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 142-58-35-3 T1A  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 35 T 142 R 58  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.079228 **Long.:** -97.988875 **Datum:** NAD 83

**Soil Map Unit Name:** Tonka silt loam, 0 to 1 percent slopes **NWI classification:** PEMA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>1</u> (A)
1. _____	0	<input type="checkbox"/>		Total Number of Dominant Species Across All Strata: <u>2</u> (B)
2. _____	0	<input type="checkbox"/>		Percent of dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b>
1. _____	0	<input type="checkbox"/>		Total % Cover of: Multiply by:
2. _____	0	<input type="checkbox"/>		OBL species <u>30</u> x 1 = <u>30</u>
3. _____	0	<input type="checkbox"/>		FACW species <u>0</u> x 2 = <u>0</u>
4. _____	0	<input type="checkbox"/>		FAC species <u>0</u> x 3 = <u>0</u>
5. _____	0	<input type="checkbox"/>		FACU species <u>0</u> x 4 = <u>0</u>
	0	<b>= Total Cover</b>		UPL species <u>70</u> x 5 = <u>350</u>
<b>Herb Stratum</b> (Plot size: _____)				<b>Col umn Total s:</b> <u>100</u> (A) <u>380</u> (B)
1. Glycine max	70	<input checked="" type="checkbox"/>	70.0% UPL	Prevalence Index = B/A = <u>3.8</u>
2. Carex aquatilis	30	<input checked="" type="checkbox"/>	30.0% OBL	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b>
1. _____	0	<input type="checkbox"/>		<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. _____	0	<input type="checkbox"/>		<input type="checkbox"/> 2 - Dominance Test is > 50%
	0	<b>= Total Cover</b>		<input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
				<input checked="" type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>

**Remarks:**  
 Vegetation dominated by non-hydrophytes. However, if allowed to revert to a natural state, hydrophytic vegetation would dominate.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

**Soil**

Sampling Point: 142-58-35-3 T1A

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	2/1	100%				Silt Loam	

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Water Table Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe)    Yes     No     Depth (inches): 16

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photos

**Remarks:**

Isolated Farmed Wetland - possesses no discreet or confined surface or shallow subsurface connection to a tributary stream eventually flowing into a navigable water of the United States. Therefore, this wetland is not hydrologically connected to a water of the United States.



Location 142-58-35-3 T1 A: Pit 05-18-10



Location 142-58-35-3 T1 A: Pedon 05-18-10



Location 142-58-35-3 T1 A: View North 05-18-10



Location 142-58-35-3 T1 A: View South 05-18-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 18-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Pointz:** 142-58-35-3 T1B  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 35 T 142 R 58  
**Landform (hillslope, terrace, etc.):** Flat **Local relief (concave, convex, none):** flat **Slope:** 1.0% / 0.6 °  
**Subregion (LRR):** LRR F **Lat.:** 47.079228 **Long.:** -97.988875 **Datum:** NAD 83

**Soil Map Unit Name:** Tonka silt loam, 0 to 1 percent slopes **NWI classification:** PEMA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Tree Stratum (Plot size: _____)	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
1. _____	0	<input type="checkbox"/>	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
			<b>= Total Cover</b>	
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>100</u> x 5 = <u>500</u> Column Totals: <u>100</u> (A) <u>500</u> (B)  Prevalence Index = B/A = <u>5</u>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
			<b>= Total Cover</b>	
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is > 50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Glycine max	100	<input checked="" type="checkbox"/>	100.0% UPL	
2. _____	0	<input type="checkbox"/>	0.0%	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
			<b>= Total Cover</b>	
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
			<b>= Total Cover</b>	
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

**Soil**

Sampling Point: 142-58-35-3 T1B

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	2/1	100%				Silt Loam	

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

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

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

(MLRA 72 and 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Water Table Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe)    Yes     No     Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photos

**Remarks:**

Upland Data Point. Nothing Evident, Farmed Through = Site shows no evident signs of a typical hydrophytic vegetative community, and is presently or has recently been farmed.



Location 142-58-35-3 T1 B: Pit 05-18-10



Location 142-58-35-3 T1 B: Pedon 05-18-10



Location 142-58-35-3 T1 B: View North 05-18-10



Location 142-58-35-3 T1 B: View South 05-18-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 18-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 142-58-35-4  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 35 T 142 R 58  
**Landform (hillslope, terrace, etc.):** Flat **Local relief (concave, convex, none):** flat **Slope:** 1.0% / 0.6 °  
**Subregion (LRR):** LRR F **Lat.:** 47.077149 **Long.:** -97.993463 **Datum:** NAD 83

**Soil Map Unit Name:** Bearden silty clay loam, 0 to 2 percent slopes **NWI classification:** PEMA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation  , Soil  , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation  , Soil  , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)
1. _____	0	<input type="checkbox"/>	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)
2. _____	0	<input type="checkbox"/>	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b>
1. _____	0	<input type="checkbox"/>	_____	Total % Cover of: _____ Multiply by: _____
2. _____	0	<input type="checkbox"/>	_____	OBL species <u>0</u> x 1 = <u>0</u>
3. _____	0	<input type="checkbox"/>	_____	FACW species <u>0</u> x 2 = <u>0</u>
4. _____	0	<input type="checkbox"/>	_____	FAC species <u>0</u> x 3 = <u>0</u>
5. _____	0	<input type="checkbox"/>	_____	FACU species <u>0</u> x 4 = <u>0</u>
	0	<b>= Total Cover</b>		UPL species <u>100</u> x 5 = <u>500</u>
<b>Herb Stratum</b> (Plot size: _____)				<b>Column Totals:</b> <u>100</u> (A) <u>500</u> (B)
1. Glycine max	100	<input checked="" type="checkbox"/>	100.0% UPL	Prevalence Index = B/A = <u>5</u>
2. _____	0	<input type="checkbox"/>	0.0%	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				
<b>Hydrophytic Vegetation Indicators:</b>				
<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation				
<input type="checkbox"/> 2 - Dominance Test is > 50%				
<input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>				
<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)				
<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.				
<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>				

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

**Soil**

Sampling Point: 142-58-35-4

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	2/1	100%				Silt Loam	

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

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

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

(MLRA 72 and 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Water Table Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe)    Yes     No     Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photos

**Remarks:**

Nothing Evident, Farmed Through = Site shows no evident signs of a typical hydrophytic vegetative community, and is presently or has recently been farmed.



Location 142-58-35-4: Pit 05-18-10



Location 142-58-35-4: Pedon 05-18-10

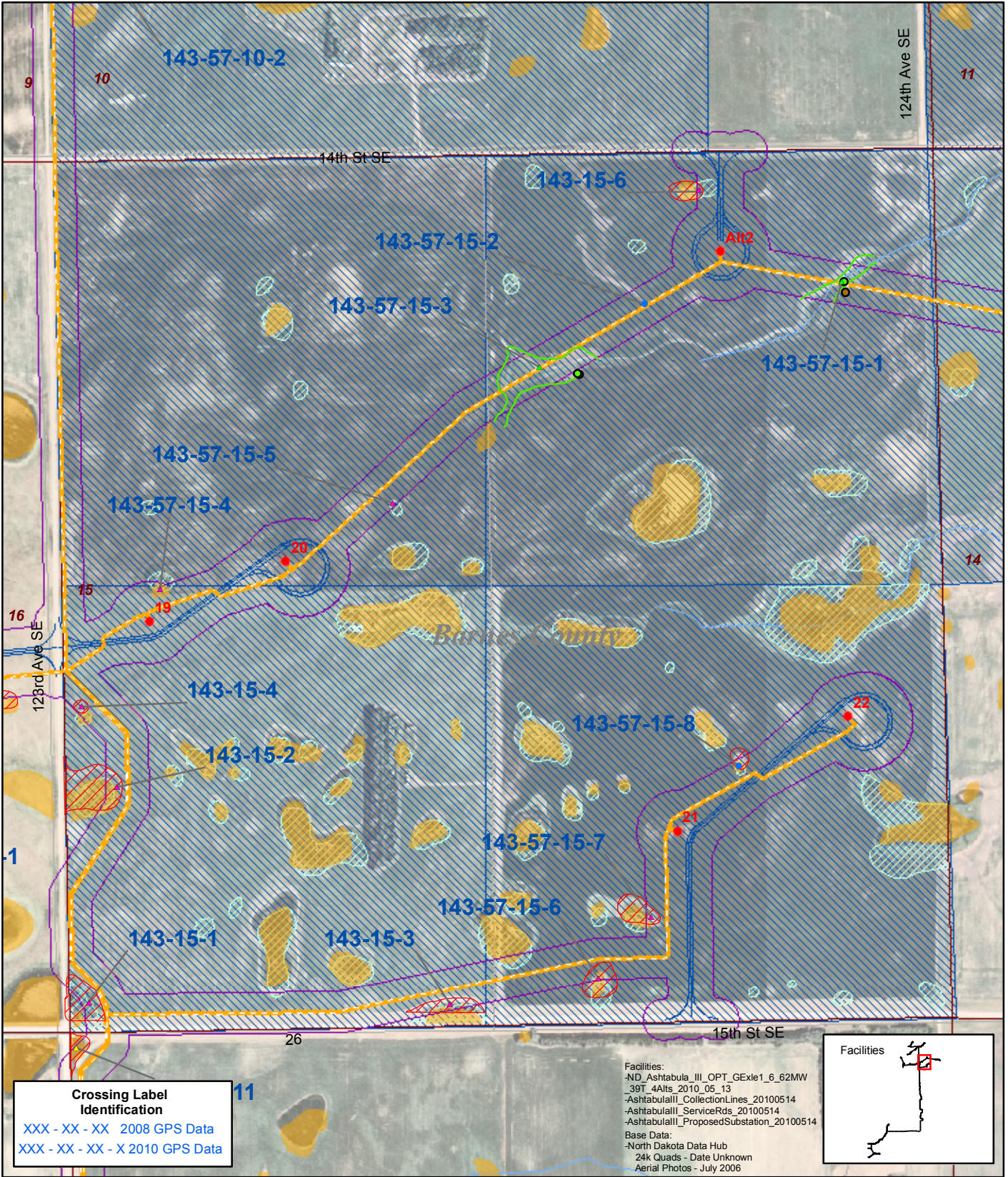


Location 142-58-35-4: View North 05-18-10



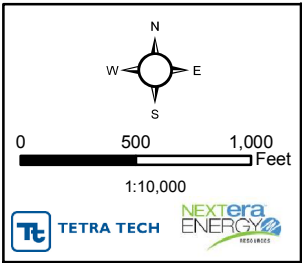
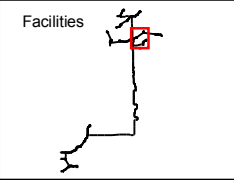
Location 142-58-35-4: View South 05-18-10

**TOWNSHIP 143N**  
**RANGE 57W**  
**SECTION 15**



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

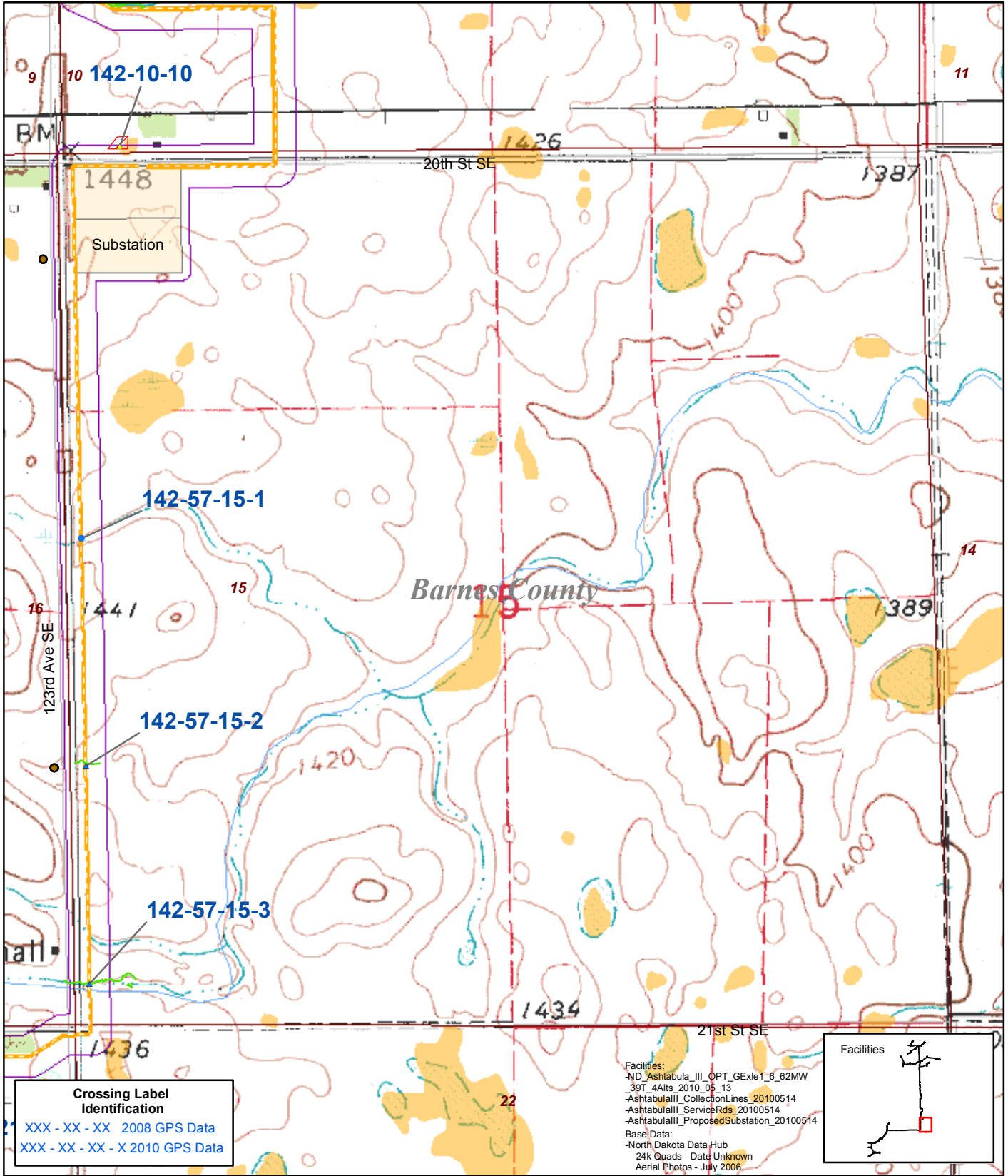
**Facilities:**  
 -ND\_Ashitabula\_III\_OPT\_GExle1\_6\_62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
**Base Data:**  
 -North Dakota Data Hub  
 24k Quads - Date Unknown  
 Aerial Photos - July 2006



- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ■ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                         |
| ▲ USFWS Easement                      | — Collector              | □ Township                        |
| Wetland                               | — Service Road           | □ County                          |
| RPW Boundary                          | ■ Substation             | □ USFWS Wetland Easement          |
| Wetland Boundary                      | □ Area of Investigation  | □ USFWS Easement                  |
|                                       | ● Lake/Pond              | ■ USFWS Waterfowl Production Area |

June 28, 2010  
**Ashtabula III**  
**Wind Energy Center**  
 Barnes County, North Dakota

**T143N**  
**R57W**  
**Section 15**



0 500 1,000 Feet
   
 1:10,000

- |   |   |  |
|---|---|--|
| <ul style="list-style-type: none"> <li>● Crossing Location</li> <li>▲ Non-Jurisdictional Isolated Wetland</li> <li>▲ USACE Jurisdictional</li> <li>▲ USACE/USFWS Jurisdictional</li> <li>▲ USFWS Easement</li> <li>Wetland</li> <li>RPW Boundary</li> <li>Wetland Boundary</li> </ul> | <ul style="list-style-type: none"> <li>● Culvert</li> <li>● Non-Wetland Data Point</li> <li>● Wetland Data Point</li> <li>● Turbine</li> <li>Collector</li> <li>Service Road</li> <li>Substation</li> <li>Area of Investigation</li> <li>Lake/Pond</li> </ul> | <ul style="list-style-type: none"> <li>River/Stream</li> <li>Road</li> <li>NWI Area</li> <li>Section</li> <li>Township</li> <li>County</li> <li>USFWS Wetland Easement</li> <li>USFWS Easement</li> <li>USFWS Waterfowl Production Area</li> </ul> |
|---|---|--|

June 28, 2010  
**Ashtabula III**  
**Wind Energy Center**  
 Barnes County, North Dakota
   

**T142N**  
**R57W**  
**Section 15**

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
**1987 COE Wetlands Delineation Manual**

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Project/Site : Ashtabula LLC 143-15-1	Date : 04/29/2008
Applicant/Owner : FPL	County : Barnes
Investigator : GCD/MRE	State : North Dakota
Do Normal Circumstances Exist on the Site ? <input checked="" type="checkbox"/>	Community ID : 143-15-1
Is the Site Significantly Disturbed (Atypical Situation) ? <input type="checkbox"/>	Transect ID : T1
Is the Area a Potential Problem Area ? <input type="checkbox"/> (If needed, explain on reverse.)	Plot ID: A

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+
Salix sp.	S	OBL			
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)				100.00%	
Remarks :					
P: Perennial	F: Forb	Vegetation dominated by hydrophytes. Normal			
N: Native	G: Grass	circumstances are present.			
E: Emergent	S: Shrub				

**HYDROLOGY**

<input checked="" type="radio"/> Recorded Data(Describe in Remarks) <input type="checkbox"/> Stream, Lake or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="radio"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b> <b>Primary Indicators :</b> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated In Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands <b>Secondary Indicators (2 or more required)</b> <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain In Remarks)
<b>Field Observations</b> Depth of Surface Water (inches) : 0 Depth to Saturated Soil (inches) : >12 Depth to Free water in Pit (inches) : >12	
Remarks : Photo: Page 1.	

Soil Name	<b>SOUTHAM</b>	Drainage Class :	Very poor
(Series and Phase)	ALL	Field Observation	<input type="checkbox"/>
Taxonomy (subgroup)	CUMULIC VERTIC ENDOA(	Confirm Mapped Type	

Profile Description :					
Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators	
<input type="checkbox"/> Histosols	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.



**143-15-1 View Facing West 04/29/08**

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
**1987 COE Wetlands Delineation Manual**

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Project/Site : Ashtabula LLC 143-15-2	Date : 04/29/2008
Applicant/Owner : FPL	County : Barnes
Investigator : GCD/MRE	State : North Dakota
Do Normal Circumstances Exist on the Site ? <input checked="" type="checkbox"/>	Community ID : 143-15-2
Is the Site Significantly Disturbed (Atypical Situation) ? <input type="checkbox"/>	Transect ID : T1
Is the Area a Potential Problem Area ? <input type="checkbox"/> (If needed, explain on reverse.)	Plot ID: A

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Polygonum pensylvanicur	ANEF	FACW
Phalaris arundinacea	PNG	FACW+	Rumex crispus	PIF	FACW
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)				100.00%	
Remarks :					
P: Perennial		A: Annual		Vegetation dominated by hydrophytes. Normal circumstances are present.	
N: Native		G: Grass			
E: Emergent		I: Introduced			
F: Forb					

**HYDROLOGY**

<input checked="" type="radio"/> Recorded Data(Describe in Remarks) <input type="checkbox"/> Stream, Lake or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="radio"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b> Primary Indicators : <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated In Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required) <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain In Remarks)
Field Observations Depth of Surface Water (inches) : 0 Depth to Saturated Soil (inches) : >12 Depth to Free water in Pit (inches) : >12	
Remarks : Photo: View West (Page 1).	

Additional Remarks:

Soil Name	<b>PARNELL</b>	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	<input type="checkbox"/>
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :					
Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators	
<input type="checkbox"/> Histosols	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.



**143-15-2 View Facing West 04/29/08**

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
**1987 COE Wetlands Delineation Manual**

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Project/Site : Ashtabula LLC 143-15-3	Date : 04/29/2008
Applicant/Owner : FPL	County : Barnes
Investigator : GCD/MRE	State : North Dakota
Do Normal Circumstances Exist on the Site ? <input checked="" type="checkbox"/>	Community ID : 143-15-3
Is the Site Significantly Disturbed (Atypical Situation) ? <input type="checkbox"/>	Transect ID : T1
Is the Area a Potential Problem Area ? <input type="checkbox"/> (If needed, explain on reverse.)	Plot ID: A

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Polygonum pensylvanicur	ANEF	FACW
Phalaris arundinacea	PNG	FACW+			
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)				100.00%	
Remarks :					
P: Perennial		F: Forb		Vegetation dominated by hydrophytes. Normal circumstances are present.	
N: Native		A: Annual			
E: Emerent		G: Grass			

**HYDROLOGY**

<input checked="" type="radio"/> Recorded Data(Describe in Remarks) <input type="checkbox"/> Stream, Lake or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="radio"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b> <b>Primary Indicators :</b> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated In Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands <b>Secondary Indicators (2 or more required)</b> <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain In Remarks)
<b>Field Observations</b>  Depth of Surface Water (inches) : 0  Depth to Saturated Soil (inches) : >12  Depth to Free water in Pit (inches) : >12	
Remarks : Photo: Page 1.	

Soil Name	<b>PARNELL</b>	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	<input type="checkbox"/>
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :					
Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	A	5 Y 2.5/1			SiL 3fsbk
7-16	Bq	5 Y 2.5/1			SiL 3fsbk

Hydric Soil Indicators	
<input type="checkbox"/> Histosols	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input checked="" type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input checked="" type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks  
 Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.



**143-15-3 View Facing West 04/29/08**

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
**1987 COE Wetlands Delineation Manual**

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Project/Site : Ashtabula LLC 143-15-4	Date : 04/29/2008
Applicant/Owner : FPL	County : Barnes
Investigator : GCD/MRE	State : North Dakota
Do Normal Circumstances Exist on the Site ? <input checked="" type="checkbox"/>	Community ID : 143-15-4
Is the Site Significantly Disturbed (Atypical Situation) ? <input checked="" type="checkbox"/>	Transect ID : T1
Is the Area a Potential Problem Area ? <input type="checkbox"/> (If needed, explain on reverse.)	Plot ID: A

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
------------------------	---------	-----------	------------------------	---------	-----------

Glycine Max                      AIFH              NI

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)	
Remarks :	
Recently farmed bean field.	Vegetation dominated by non-hydrophytes.
A: Annual              F: Forb I: Introduced        H: Partly Woody	

**HYDROLOGY**

<input checked="" type="radio"/> Recorded Data(Describe in Remarks) <input type="checkbox"/> Stream, Lake or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="radio"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b> <b>Primary Indicators :</b> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated In Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands <b>Secondary Indicators (2 or more required)</b> <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain In Remarks)
<b>Field Observations</b> Depth of Surface Water (inches) : 0 Depth to Saturated Soil (inches) : >12 Depth to Free water in Pit (inches) : >12	
Remarks : Photo: Page 1.	

Additional Remarks: The area is a farmed depressional feature that is in a USFWS Wetland Easement.

Soil Name	<b>PARNELL</b>	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	<input type="checkbox"/>
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :					
Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators	
<input type="checkbox"/> Histosols	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.



**143-15-4 View Facing North 04/29/08**

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
**1987 COE Wetlands Delineation Manual**

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Project/Site : Ashtabula LLC 143-15-6	Date : 04/29/2008
Applicant/Owner : FPL	County : Barnes
Investigator : GCD/MRE	State : North Dakota
Do Normal Circumstances Exist on the Site ? <input checked="" type="checkbox"/>	Community ID : 143-15-6
Is the Site Significantly Disturbed (Atypical Situation) ? <input checked="" type="checkbox"/>	Transect ID : T1
Is the Area a Potential Problem Area ? <input type="checkbox"/> (If needed, explain on reverse.)	Plot ID: A

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine Max	AIFH	NI			
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)					
Remarks : Recently farmed bean field. <span style="float: right;">Vegetation dominated by non-hydrophytes.</span>					
A: Annual                      I: Introduced F: Forb                         H: Partly Woody					

**HYDROLOGY**

<input checked="" type="radio"/> Recorded Data(Describe in Remarks) <input type="checkbox"/> Stream, Lake or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="radio"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b> <b>Primary Indicators :</b> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated In Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands <b>Secondary Indicators (2 or more required)</b> <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain In Remarks)
Field Observations Depth of Surface Water (inches) : 0 Depth to Saturated Soil (inches) : >12 Depth to Free water in Pit (inches) : >12	
Remarks : Photo: Page 1.	

Additional Remarks: The area is farmed and effectively drained. The area is a depressional feature that is in a USFWS Wetland Easement.

Soil Name	<b>PARNELL</b>	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	<input type="checkbox"/>
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :					
Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators	
<input type="checkbox"/> Histosols	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

**WETLAND DETERMINATION**

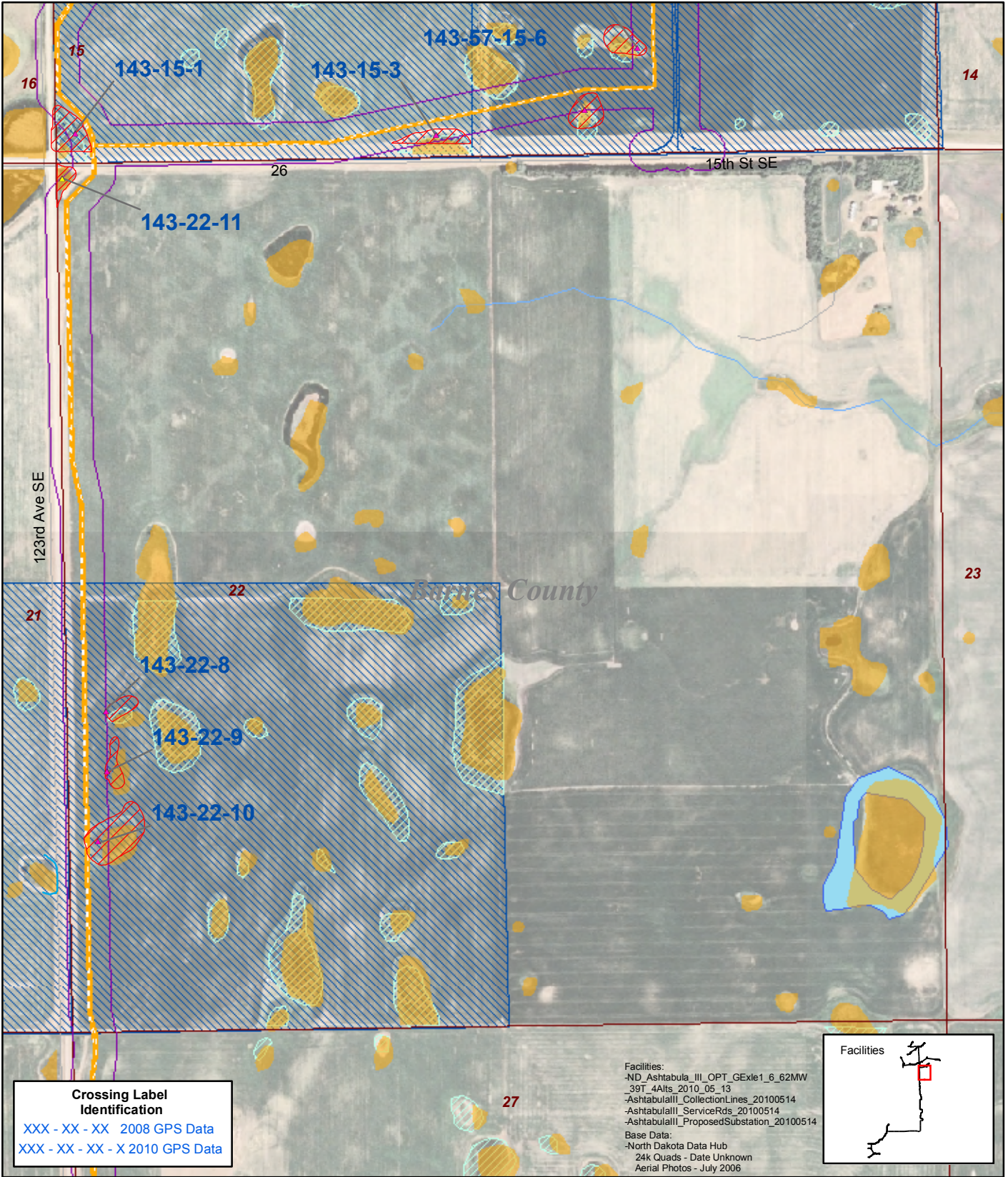
Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.



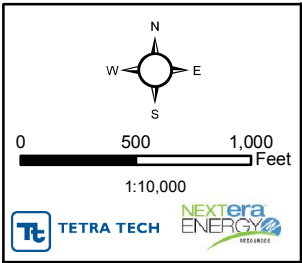
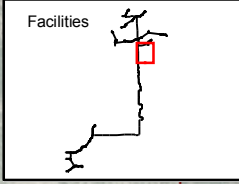
**143-15-6 View Facing Northwest 04/29/08**

**TOWNSHIP 143N**  
**RANGE 57W**  
**SECTION 22**



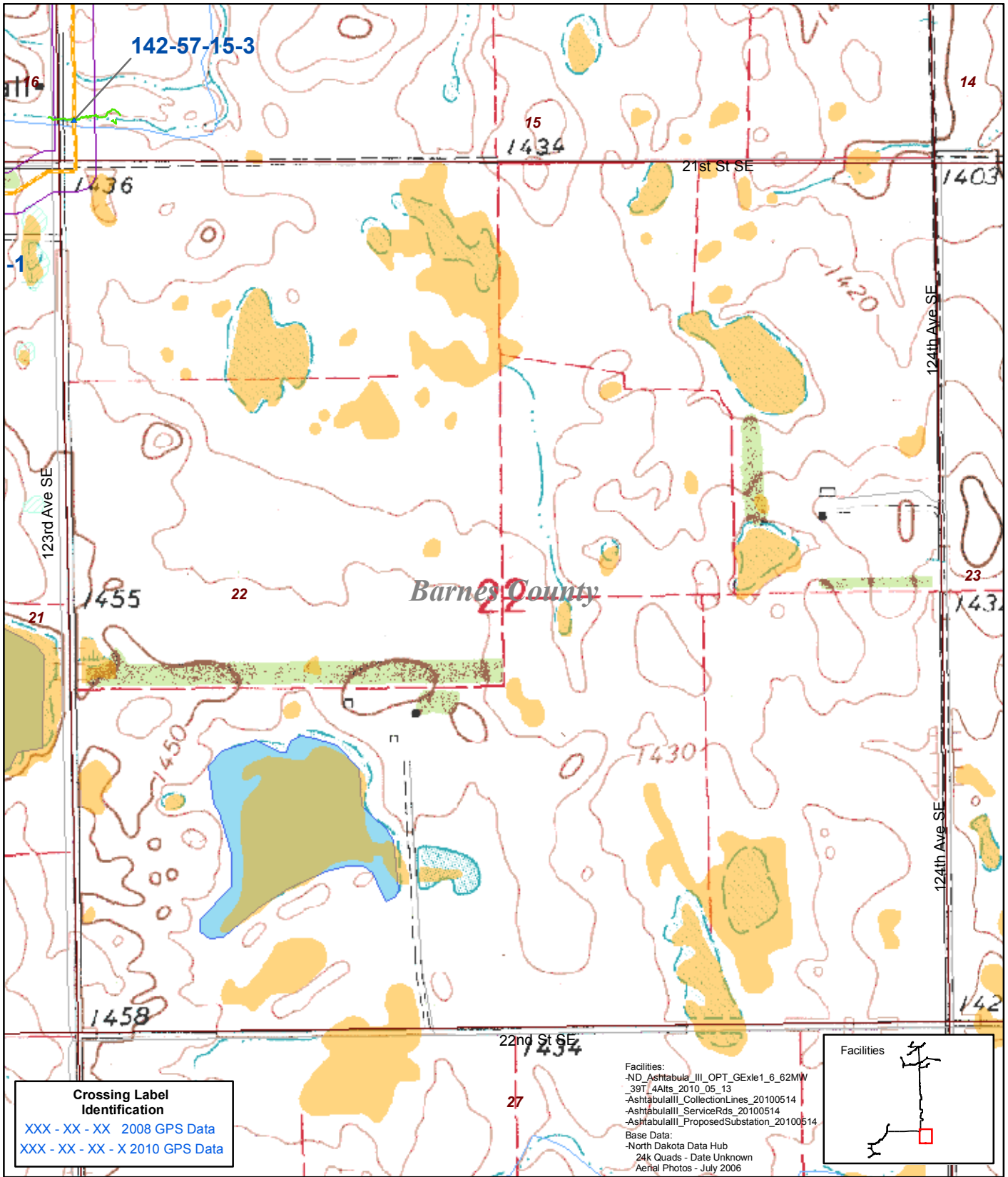
**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

**Facilities:**  
 -ND\_AshTabula\_III\_OPT\_GExle1\_6\_62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
**Base Data:**  
 -North Dakota Data Hub  
 24k Quads - Date Unknown  
 Aerial Photos - July 2006



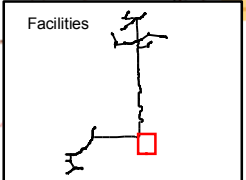
- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ■ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                         |
| ▲ USFWS Easement                      | — Collector              | □ Township                        |
| ~ Wetland                             | — Service Road           | □ County                          |
| ~ RPW Boundary                        | ■ Substation             | □ USFWS Wetland Easement          |
| ~ Wetland Boundary                    | ■ Area of Investigation  | □ USFWS Easement                  |
|                                       | ■ Lake/Pond              | ■ USFWS Waterfowl Production Area |

June 28, 2010  
**Ashtabula III**  
**Wind Energy Center**  
 Barnes County, North Dakota  
T143N  
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Section 22



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

Facilities:  
 -ND\_AshTabula\_III\_OPT\_GExle1\_6\_62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
 Base Data:  
 -North Dakota Data Hub  
 24K Quads - Date Unknown  
 Aerial Photos - July 2006



- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ■ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                         |
| ▲ USFWS Easement                      | — Collector              | □ Township                        |
| ■ Wetland                             | — Service Road           | □ County                          |
| — RPW Boundary                        | ■ Substation             | □ USFWS Wetland Easement          |
| — Wetland Boundary                    | ■ Area of Investigation  | □ USFWS Easement                  |
|                                       | ■ Lake/Pond              | ■ USFWS Waterfowl Production Area |

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 Ashtabula III  
 Wind Energy Center  
 Barnes County, North Dakota

**T142N  
 R57W  
 Section 22**

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
**1987 COE Wetlands Delineation Manual**

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Project/Site : Ashtabula LLC 143-22-8	Date : 04/29/2008
Applicant/Owner : FPL	County : Barnes
Investigator : GCD/MRE	State : North Dakota
Do Normal Circumstances Exist on the Site ? <input checked="" type="checkbox"/>	Community ID : 143-22-8
Is the Site Significantly Disturbed (Atypical Situation) ? <input checked="" type="checkbox"/>	Transect ID : T1
Is the Area a Potential Problem Area ? <input type="checkbox"/> (If needed, explain on reverse.)	Plot ID: A

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine Max	AIFH	NI	Typha angustifolia	PNEF	OBL
Percent of Dominant Species that are OBL, FACW, or FAC			(excluding FAC-)		100.00%
Remarks :					
Recently farmed bean field.			Vegetation dominated by non-hydrophytes.		
A: Annual                      P: Perennial I: Introduced                 N: Native F: Forb                         E: Emergent					

**HYDROLOGY**

<input checked="" type="radio"/> Recorded Data(Describe in Remarks) <input type="checkbox"/> Stream, Lake or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="radio"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b> <b>Primary Indicators :</b> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated In Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands <b>Secondary Indicators (2 or more required)</b> <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain In Remarks)
<b>Field Observations</b> Depth of Surface Water (inches) : 0 Depth to Saturated Soil (inches) : >12 Depth to Free water in Pit (inches) : >12	
Remarks : Photo: View Northeast (Page 1).	

Additional Remarks: The area is a farmed depressional feature that is in a USFWS Wetland Easement.

Soil Name	<b>TONKA</b>	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	<input type="checkbox"/>
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :					
Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5Y 2/1			SiCL 1 msbk
7-11		2.5Y 2/1			SiCL 2 mpl
11-16		2.5 Y 3/1	2mpl 5YR 4/2		SiL 2 mpl

Hydric Soil Indicators	
<input type="checkbox"/> Histosols	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input checked="" type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input checked="" type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks  
 Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :  
 Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.



**143-22-8 View Facing Northeast 04/29/08**

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
**1987 COE Wetlands Delineation Manual**

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Project/Site : Ashtabula LLC 143-22-9	Date : 04/29/2008
Applicant/Owner : FPL	County : Barnes
Investigator : GCD/MRE	State : North Dakota
Do Normal Circumstances Exist on the Site ? <input checked="" type="checkbox"/>	Community ID : 143-22-9
Is the Site Significantly Disturbed (Atypical Situation) ? <input checked="" type="checkbox"/>	Transect ID : T1
Is the Area a Potential Problem Area ? <input type="checkbox"/> (If needed, explain on reverse.)	Plot ID: A

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Glycine Max	AIFH	NI
Percent of Dominant Species that are OBL, FACW, or FAC			(excluding FAC-)		100.00%
Remarks :					
Recently farmed field.			Vegetation dominated by non-hydrophytes.		
P: Perennial      F: Forb                      I: Introduced N: Native        H: Partly Woody E: Emergent     A: Annual					

**HYDROLOGY**

<input checked="" type="radio"/> Recorded Data(Describe in Remarks) <input type="checkbox"/> Stream, Lake or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="radio"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b> <b>Primary Indicators :</b> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated In Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands  <b>Secondary Indicators (2 or more required)</b> <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain In Remarks)
<b>Field Observations</b>  Depth of Surface Water (inches) : 0  Depth to Saturated Soil (inches) : >12  Depth to Free water in Pit (inches) : >12	
Remarks : Photo: Page 1.	

Additional Remarks: The area is a farmed depressional feature that is in a USFWS Wetland Easement.
--

Soil Name	<b>TONKA</b>	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	<input type="checkbox"/>
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :					
Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5Y 2/1			SiCL 1msbk
7-16	E	2.5Y 3/1			SiCL 2mpl

Hydric Soil Indicators	
<input type="checkbox"/> Histosols	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input checked="" type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input checked="" type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks  
 Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.



**143-22-9 View Facing North 04/29/08**

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
**1987 COE Wetlands Delineation Manual**

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Project/Site : Ashtabula LLC 143-22-10	Date : 04/29/2008
Applicant/Owner : FPL	County : Barnes
Investigator : GCD/MRE	State : North Dakota
Do Normal Circumstances Exist on the Site ? <input checked="" type="checkbox"/>	Community ID : 143-22-10
Is the Site Significantly Disturbed (Atypical Situation) ? <input type="checkbox"/>	Transect ID : T1
Is the Area a Potential Problem Area ? <input type="checkbox"/> (If needed, explain on reverse.)	Plot ID: A

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL			
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)			100.00%		
Remarks :					
Perimeter of field is farmed.			Vegetation dominated by hydrophytes. Normal circumstances are present.		
P: Perennial      E: Emergent N: Native         F: Forb					

**HYDROLOGY**

<input checked="" type="radio"/> Recorded Data(Describe in Remarks) <input type="checkbox"/> Stream, Lake or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="radio"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b> <b>Primary Indicators :</b> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated In Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands  <b>Secondary Indicators (2 or more required)</b> <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain In Remarks)
<b>Field Observations</b> Depth of Surface Water (inches) : 0 Depth to Saturated Soil (inches) : >12 Depth to Free water in Pit (inches) : >12	
Remarks : Photo: Page 1.	

Soil Name	<b>PARNELL</b>	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	<input checked="" type="checkbox"/>
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :					
Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	5Y 2.5/1			SiC 1msbk
6-16	Bq	5Y 2.5/1			SiCL 2 msbk

Hydric Soil Indicators	
<input type="checkbox"/> Histosols	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input checked="" type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input checked="" type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks  
 Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does confirm the mapped soil type.

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.



**143-22-10 View Facing Northwest 04/29/08**

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
**1987 COE Wetlands Delineation Manual**

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Project/Site : Ashtabula LLC 143-22-11	Date : 04/29/2008
Applicant/Owner : FPL	County : Barnes
Investigator : GCD/MRE	State : North Dakota
Do Normal Circumstances Exist on the Site ? <input checked="" type="checkbox"/>	Community ID : 143-22-11
Is the Site Significantly Disturbed (Atypical Situation) ? <input type="checkbox"/>	Transect ID : T1
Is the Area a Potential Problem Area ? <input type="checkbox"/> (If needed, explain on reverse.)	Plot ID: A

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Spartina pectinata	PNG	FACW
Phalaris arundinacea	PNG	FACW+			
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)				100.00%	
Remarks :					
P: Perennial		Vegetation dominated by hydrophytes. Normal circumstances are present.			
N: Native					
E: Emergent					
F: Forb					
G: Grass					

**HYDROLOGY**

<input checked="" type="radio"/> Recorded Data(Describe in Remarks) <input type="checkbox"/> Stream, Lake or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="radio"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b> <b>Primary Indicators :</b> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated In Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands  <b>Secondary Indicators (2 or more required)</b> <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain In Remarks)
<b>Field Observations</b>  Depth of Surface Water (inches) : 0  Depth to Saturated Soil (inches) : >12  Depth to Free water in Pit (inches) : >12	
Remarks : Photo: View Southwest (Page 1).	

Soil Name	<b>SOUTHAM</b>	Drainage Class :	Very poor
(Series and Phase)	ALL	Field Observation	<input type="checkbox"/>
Taxonomy (subgroup)	CUMULIC VERTIC ENDOA(	Confirm Mapped Type	

Profile Description :					
Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators	
<input type="checkbox"/> Histosols	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks : Soil profile not investigated. Listed as hydric soil by NRCS.

**WETLAND DETERMINATION**

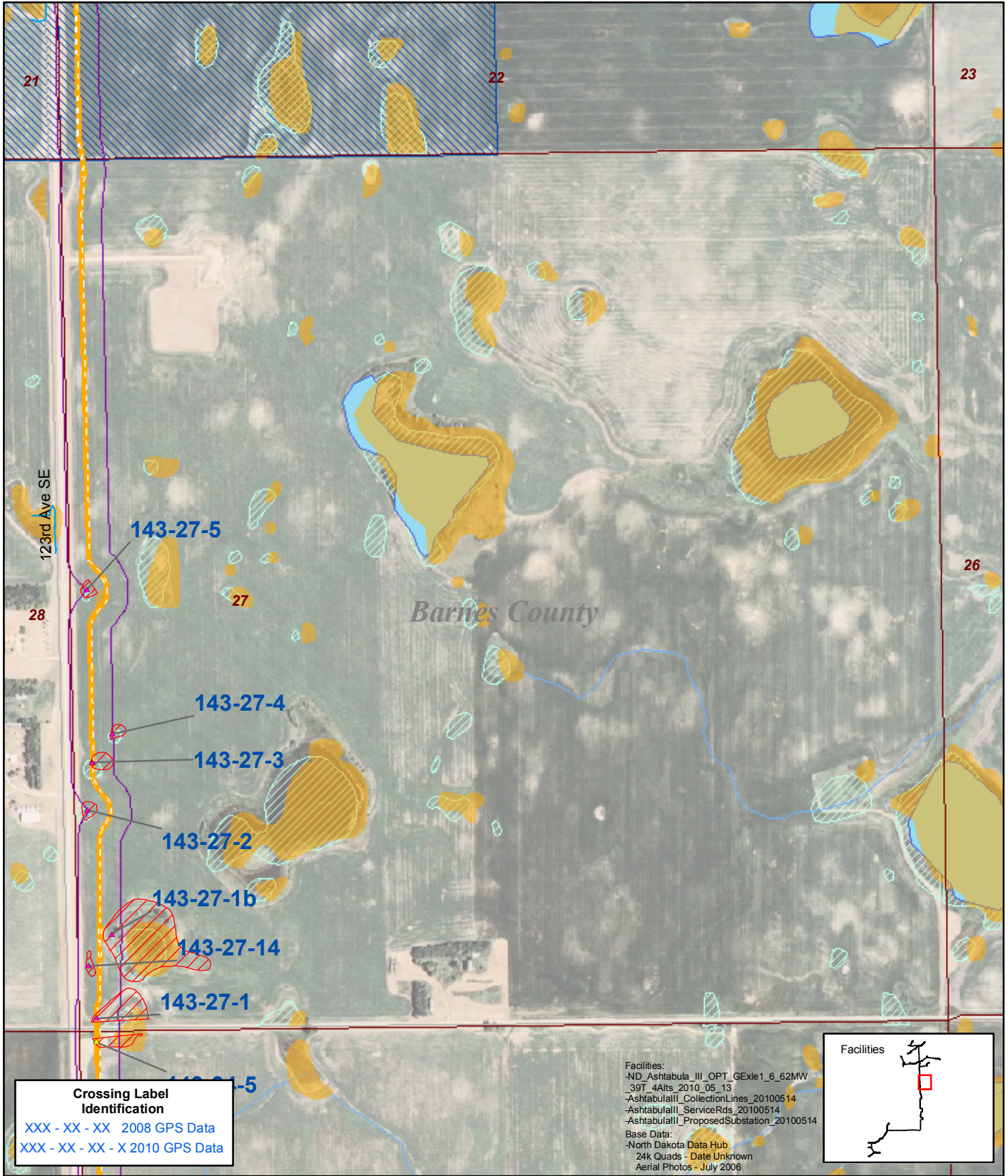
Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.



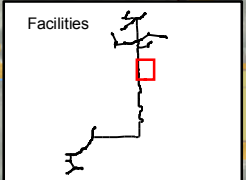
**143-22-11 View Facing Southwest 04/29/08**

**TOWNSHIP 143N**  
**RANGE 57W**  
**SECTION 27**



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

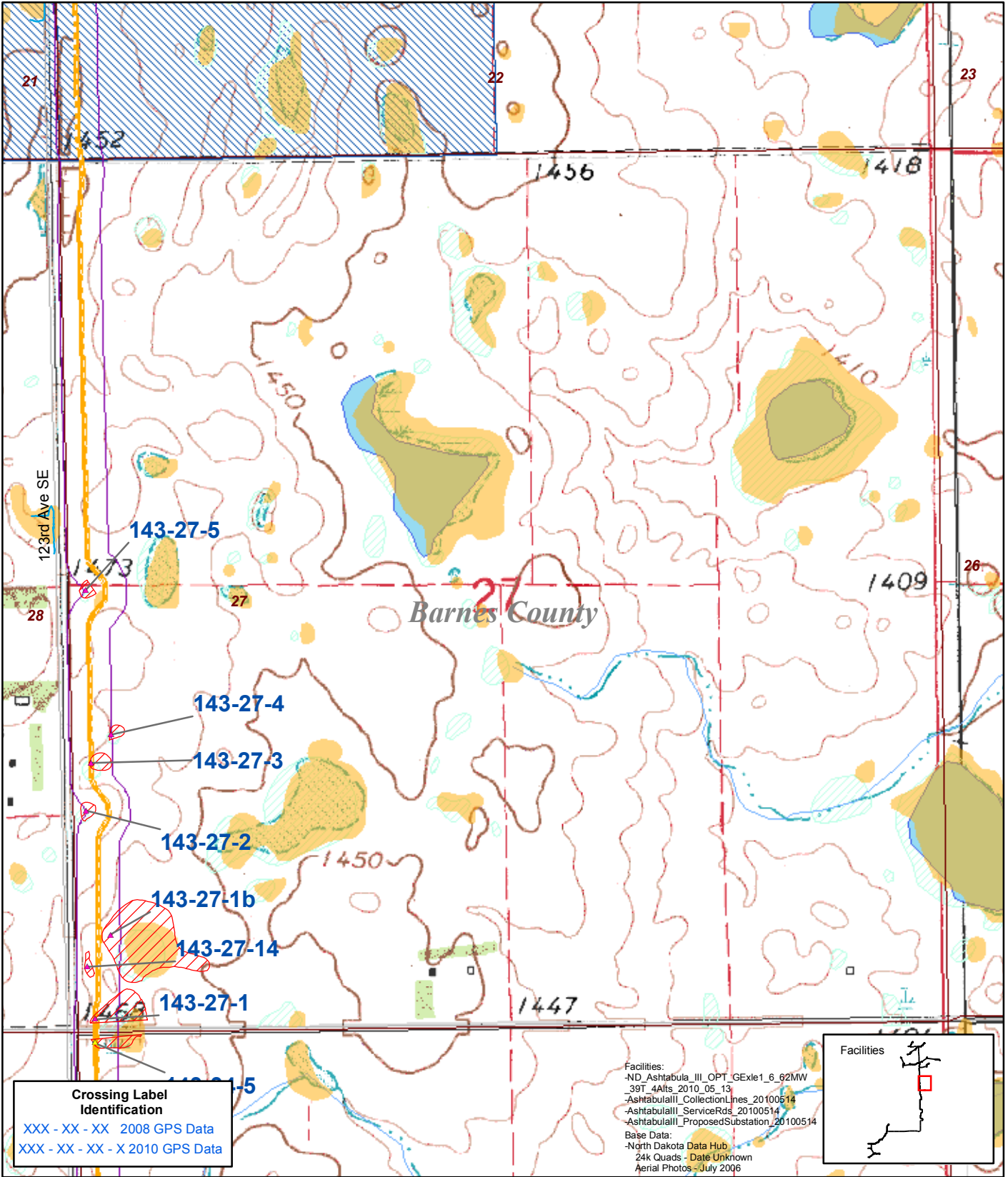
Facilities:  
 -ND\_AshTabula\_III\_OPT\_GExle1\_6\_62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
 Base Data:  
 -North Dakota Data Hub  
 -24k Quads - Date Unknown  
 Aerial Photos - July 2006



- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ■ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                         |
| ▲ USFWS Easement                      | — Collector              | □ Township                        |
| Wetland                               | — Service Road           | □ County                          |
| RPW Boundary                          | ■ Substation             | □ USFWS Wetland Easement          |
| Wetland Boundary                      | ■ Area of Investigation  | □ USFWS Easement                  |
|                                       | ■ Lake/Pond              | ■ USFWS Waterfowl Production Area |

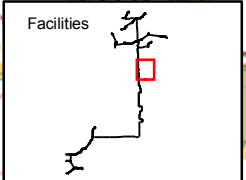
June 28, 2010  
 Ashtabula III  
 Wind Energy Center  
 Barnes County, North Dakota

**T143N  
 R57W  
 Section 27**



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

Facilities:  
 -ND\_AshTabula\_III\_OPT\_GE1x1.6\_62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100614  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
 Base Data:  
 -North Dakota Data Hub  
 24K Quads - Date Unknown  
 Aerial Photos - July 2006



- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ■ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | ■ Section                         |
| ▲ USFWS Easement                      | — Collector              | ■ Township                        |
| ■ Wetland                             | — Service Road           | ■ County                          |
| — RPW Boundary                        | ■ Substation             | ■ USFWS Wetland Easement          |
| — Wetland Boundary                    | ■ Area of Investigation  | ■ USFWS Easement                  |
|                                       | ■ Lake/Pond              | ■ USFWS Waterfowl Production Area |

June 28, 2010  
 Ashtabula III  
 Wind Energy Center  
 Barnes County, North Dakota

**T143N  
 R57W  
 Section 27**

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
**1987 COE Wetlands Delineation Manual**

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Project/Site : Ashtabula LLC 143-27-1	Date : 04/29/2008
Applicant/Owner : FPL	County : Barnes
Investigator : GCD/MRE	State : North Dakota
Do Normal Circumstances Exist on the Site ? <input checked="" type="checkbox"/>	Community ID : 143-27-1
Is the Site Significantly Disturbed (Atypical Situation) ? <input type="checkbox"/>	Transect ID : T1
Is the Area a Potential Problem Area ? <input type="checkbox"/> (If needed, explain on reverse.)	Plot ID: A

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)				100.00%	
Remarks :					
Shrub/Scrub Component			Vegetation dominated by hydrophytes. Normal circumstances are present.		
P: Perennial		F: Forb			
N: Native		G: Grass			
E: Emergent					

**HYDROLOGY**

<input checked="" type="radio"/> Recorded Data(Describe in Remarks) <input type="checkbox"/> Stream, Lake or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="radio"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b> <b>Primary Indicators :</b> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated In Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands  <b>Secondary Indicators (2 or more required)</b> <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain In Remarks)
<b>Field Observations</b>  Depth of Surface Water (inches) : 0  Depth to Saturated Soil (inches) : >12  Depth to Free water in Pit (inches) : >12	
Remarks : Photo: View West (Page 1).	

Soil Name	<b>PARNELL</b>	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	<input type="checkbox"/>
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :					
Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	5 Y 2.5/1			SiCL 2 msbk
6-16	Bq	5 Y 2.5/1			SiCL 3 msbk

Hydric Soil Indicators	
<input type="checkbox"/> Histosols	<input type="checkbox"/> Concretions
<input checked="" type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input checked="" type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input checked="" type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks  
Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.



**143-27-1 View Facing West 04/29/08**

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
**1987 COE Wetlands Delineation Manual**

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Project/Site : Ashtabula LLC 143-27-1B	Date : 04/29/2008
Applicant/Owner : FPL	County : Barnes
Investigator : GCD/MRE	State : North Dakota
Do Normal Circumstances Exist on the Site ? <input checked="" type="checkbox"/>	Community ID : 143-27-1B
Is the Site Significantly Disturbed (Atypical Situation) ? <input type="checkbox"/>	Transect ID : T1
Is the Area a Potential Problem Area ? <input type="checkbox"/> (If needed, explain on reverse.)	Plot ID: A

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+
Salix sp.	S	OBL	Phragmites australis	PNEG	FACW
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)				100.00%	
Remarks : Perimeter of land is farmed. <span style="float: right;">Vegetation dominated by hydrophytes. Normal circumstances are present.</span>					
P: Perennial                      S: Shrub N: Native                         G: Grass E: Emergent                      F: Forb					

**HYDROLOGY**

<input checked="" type="radio"/> Recorded Data(Describe in Remarks) <input type="checkbox"/> Stream, Lake or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="radio"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b> <b>Primary Indicators :</b> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated In Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands <b>Secondary Indicators (2 or more required)</b> <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain In Remarks)
<b>Field Observations</b> Depth of Surface Water (inches) : 0 Depth to Saturated Soil (inches) : >12 Depth to Free water in Pit (inches) : >12	
Remarks : Photo: View North East (Page 1).	

Soil Name	<b>PARNELL</b>	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	<input type="checkbox"/>
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :					
Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-8	A	5 Y 2.5/1			SiCL 1 msbk
8-16	Bq	5 Y 2.5/1			SiCL 2msbk

Hydric Soil Indicators	
<input type="checkbox"/> Histosols	<input type="checkbox"/> Concretions
<input checked="" type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input checked="" type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input checked="" type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks  
 Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks :  
 Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.



**143-27-1B View Facing Northeast 04/29/08**

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
**1987 COE Wetlands Delineation Manual**

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Project/Site : Ashtabula LLC 143-27-2	Date : 04/29/2008
Applicant/Owner : FPL	County : Barnes
Investigator : GCD/MRE	State : North Dakota
Do Normal Circumstances Exist on the Site ? <input checked="" type="checkbox"/>	Community ID : 143-27-2
Is the Site Significantly Disturbed (Atypical Situation) ? <input checked="" type="checkbox"/>	Transect ID : T1
Is the Area a Potential Problem Area ? <input type="checkbox"/> (If needed, explain on reverse.)	Plot ID: A

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine Max	AIFH	NI			
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)					
Remarks : Recently farmed bean field. <span style="float: right;">Vegetation dominated by non-hydrophytes.</span>					
A: Annual      F: Forb I: Introduced    H: Partly Woody					

**HYDROLOGY**

<input checked="" type="radio"/> Recorded Data(Describe in Remarks) <input type="checkbox"/> Stream, Lake or Tide Gauge  <input type="checkbox"/> Other  <input type="radio"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b> Primary Indicators : <input type="checkbox"/> Inundated  <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required) <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain In Remarks)
Additional Remarks: The area is a farmed depressional feature that is in a USFWS Wetland Easement.	
<b>Field Observations</b> Depth of Surface Water (inches) : 0 Depth to Saturated Soil (inches) : >12 Depth to Free water in Pit (inches) : >12	
Remarks : Photo: View North (Page 1).	

Soil Name	<b>TONKA</b>	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	<input type="checkbox"/>
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :					
Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5 Y 2/1			SICL 1 msbk
7-16	E	2.5 Y 3/1			SICL 2 mpl

Hydric Soil Indicators	
<input type="checkbox"/> Histosols	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input checked="" type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input checked="" type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks  
 Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.



**143-27-2 View Facing North 04/29/08**

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
**1987 COE Wetlands Delineation Manual**

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Project/Site : Ashtabula LLC 143-27-3	Date : 04/29/2008
Applicant/Owner : FPL	County : Barnes
Investigator : GCD/MRE	State : North Dakota
Do Normal Circumstances Exist on the Site ? <input checked="" type="checkbox"/>	Community ID : 143-27-3
Is the Site Significantly Disturbed (Atypical Situation) ? <input checked="" type="checkbox"/>	Transect ID : T1
Is the Area a Potential Problem Area ? <input type="checkbox"/> (If needed, explain on reverse.)	Plot ID: A

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine Max	AIFH	NI			
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)					
Remarks : Recently farmed bean field.  A: Annual            F: Forb I: Introduced        H: Partly Woody					
Vegetation dominated by non-hydrophytes.					

**HYDROLOGY**

<input checked="" type="radio"/> Recorded Data(Describe in Remarks) <input type="checkbox"/> Stream, Lake or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="radio"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b> <b>Primary Indicators :</b> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated In Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands <b>Secondary Indicators (2 or more required)</b> <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain In Remarks)
<b>Field Observations</b> Depth of Surface Water (inches) : 0 Depth to Saturated Soil (inches) : >12 Depth to Free water in Pit (inches) : >12	
Remarks : Photo: View North (Page 1).	

Soil Name	<b>TONKA</b>	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	<input type="checkbox"/>
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :					
Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5 Y 2/1			SiCL 1 msbk
7-16	E	2.5 Y 3/1			SiCL 2 mpl

Hydric Soil Indicators	
<input type="checkbox"/> Histosols	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input checked="" type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input checked="" type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks  
Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual. This area is a farmed depressional area in a USFWS Wetland Easement.



**143-27-3 View Facing North 04/29/08**

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
**1987 COE Wetlands Delineation Manual**

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Project/Site : Ashtabula LLC 143-27-4	Date : 04/29/2008
Applicant/Owner : FPL	County : Barnes
Investigator : GCD/MRE	State : North Dakota
Do Normal Circumstances Exist on the Site ? <input checked="" type="checkbox"/>	Community ID : 143-27-4
Is the Site Significantly Disturbed (Atypical Situation) ? <input checked="" type="checkbox"/>	Transect ID : T1
Is the Area a Potential Problem Area ? <input type="checkbox"/> (If needed, explain on reverse.)	Plot ID: A

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
------------------------	---------	-----------	------------------------	---------	-----------

Glycine Max	AIFH	NI			
-------------	------	----	--	--	--

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks :  
 Recently farmed field. Vegetation dominated by non-hydrophytes.

A: Annual            F: Forb  
 I: Introduced        H: Partly Woody

**HYDROLOGY**

<input checked="" type="radio"/> Recorded Data(Describe in Remarks) <input type="checkbox"/> Stream, Lake or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="radio"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b> Primary Indicators : <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated In Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required) <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain In Remarks)
Field Observations Depth of Surface Water (inches) : 0 Depth to Saturated Soil (inches) : >12 Depth to Free water in Pit (inches) : >12	
Remarks : Photo: View North (Page 1).	

Additional Remarks: The area is a farmed depressional feature that is in a USFWS Wetland Easement.

Soil Name	<b>TONKA</b>	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	<input type="checkbox"/>
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :					
Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5 Y 2/1			SiCL 1 msbk
7-16	E	2.5 Y 3/1			SiCL 2mpl

Hydric Soil Indicators	
<input type="checkbox"/> Histosols	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input checked="" type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input checked="" type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks  
 Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.



**143-27-4 View Facing North 04/29/08**

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
**1987 COE Wetlands Delineation Manual**

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Project/Site : Ashtabula LLC 143-27-5	Date : 04/29/2008
Applicant/Owner : FPL	County : Barnes
Investigator : GCD/MRE	State : North Dakota
Do Normal Circumstances Exist on the Site ? <input checked="" type="checkbox"/>	Community ID : 143-27-5
Is the Site Significantly Disturbed (Atypical Situation) ? <input checked="" type="checkbox"/>	Transect ID : T1
Is the Area a Potential Problem Area ? <input type="checkbox"/> (If needed, explain on reverse.)	Plot ID: A

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
------------------------	---------	-----------	------------------------	---------	-----------

Glycine Max	AIFH	NI
-------------	------	----

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)	
Remarks : Recently farmed bean field. <p style="text-align: right;">Vegetation dominated by non-hydrophytes.</p>	
A: Annual                      F: Forb I: Introduced                 H: Partly Woody	

**HYDROLOGY**

<input checked="" type="radio"/> Recorded Data(Describe in Remarks) <input type="checkbox"/> Stream, Lake or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="radio"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b> Primary Indicators : <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated In Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required) <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain In Remarks)
Field Observations Depth of Surface Water (inches) : 0 Depth to Saturated Soil (inches) : >12 Depth to Free water in Pit (inches) : >12	
Remarks : Photo: Page 1.	

Additional Remarks: The area is a farmed depressional feature that is in a USFWS Wetland Easement.
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Soil Name	<b>TONKA</b>	Drainage Class :	Poorly
(Series and Phase)	DRAINED	Field Observation	<input type="checkbox"/>
Taxonomy (subgroup)	ARGIAQUIC ARGIALBOLLS	Confirm Mapped Type	

Profile Description :					
Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-7	Ap	2.5 Y 2/1			SiC 1msbk
7-16	E	2.5 Y 3/1			SiC 3mpl

Hydric Soil Indicators	
<input type="checkbox"/> Histosols	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input checked="" type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks  
Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.



**143-27-5 View Facing Northwest 04/29/08**

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
**1987 COE Wetlands Delineation Manual**

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Project/Site : Ashtabula LLC 143-27-14	Date : 04/29/2008
Applicant/Owner : FPL	County : Barnes
Investigator : GCD/MRE	State : North Dakota
Do Normal Circumstances Exist on the Site ? <input checked="" type="checkbox"/>	Community ID : 143-27-14
Is the Site Significantly Disturbed (Atypical Situation) ? <input checked="" type="checkbox"/>	Transect ID : T1
Is the Area a Potential Problem Area ? <input type="checkbox"/> (If needed, explain on reverse.)	Plot ID: A

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Glycine Max	AIFH	NI			
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)					
Remarks : Recently farmed bean field. <span style="float:right">Vegetation dominated by non-hydrophytes.</span>					
A: Annual      F: Forb I: Introduced    H: Partly Woody					

**HYDROLOGY**

<input checked="" type="radio"/> Recorded Data(Describe in Remarks) <input type="checkbox"/> Stream, Lake or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="radio"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b> Primary Indicators : <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated In Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required) <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain In Remarks)
Field Observations Depth of Surface Water (inches) : 0 Depth to Saturated Soil (inches) : >12 Depth to Free water in Pit (inches) : >12	
Remarks : Photo: (Page 1).	

Additional Remarks: The area is a farmed depressional feature that is in a USFWS Wetland Easement.

Soil Name	<b>HAMERLY-TONKA</b>	Drainage Class :	Poorly to somewhat po
(Series and Phase)	DRAINED	Field Observation	<input type="checkbox"/>
Taxonomy (subgroup)	AERIC CALCIAQUOLLS	Confirm Mapped Type	

Profile Description :					
Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

- Hydric Soil Indicators
- |  |  |
|--|--|
| <input type="checkbox"/> Histosols                   | <input type="checkbox"/> Concretions                                       |
| <input type="checkbox"/> Histic Epipedon             | <input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor               | <input type="checkbox"/> Organic Streaking in Sandy Soils                  |
| <input type="checkbox"/> Aquic Moisture Regime       | <input type="checkbox"/> Listed on local Hydric Soils List                 |
| <input type="checkbox"/> Reducing Conditions         | <input type="checkbox"/> Listed on National Hydric Soils List              |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks)                        |

Remarks

Soil profile not investigated. Listed as hydric soil by NRCS.

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present ?	No	Is this Sampling Point Within a Wetland ?	No
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

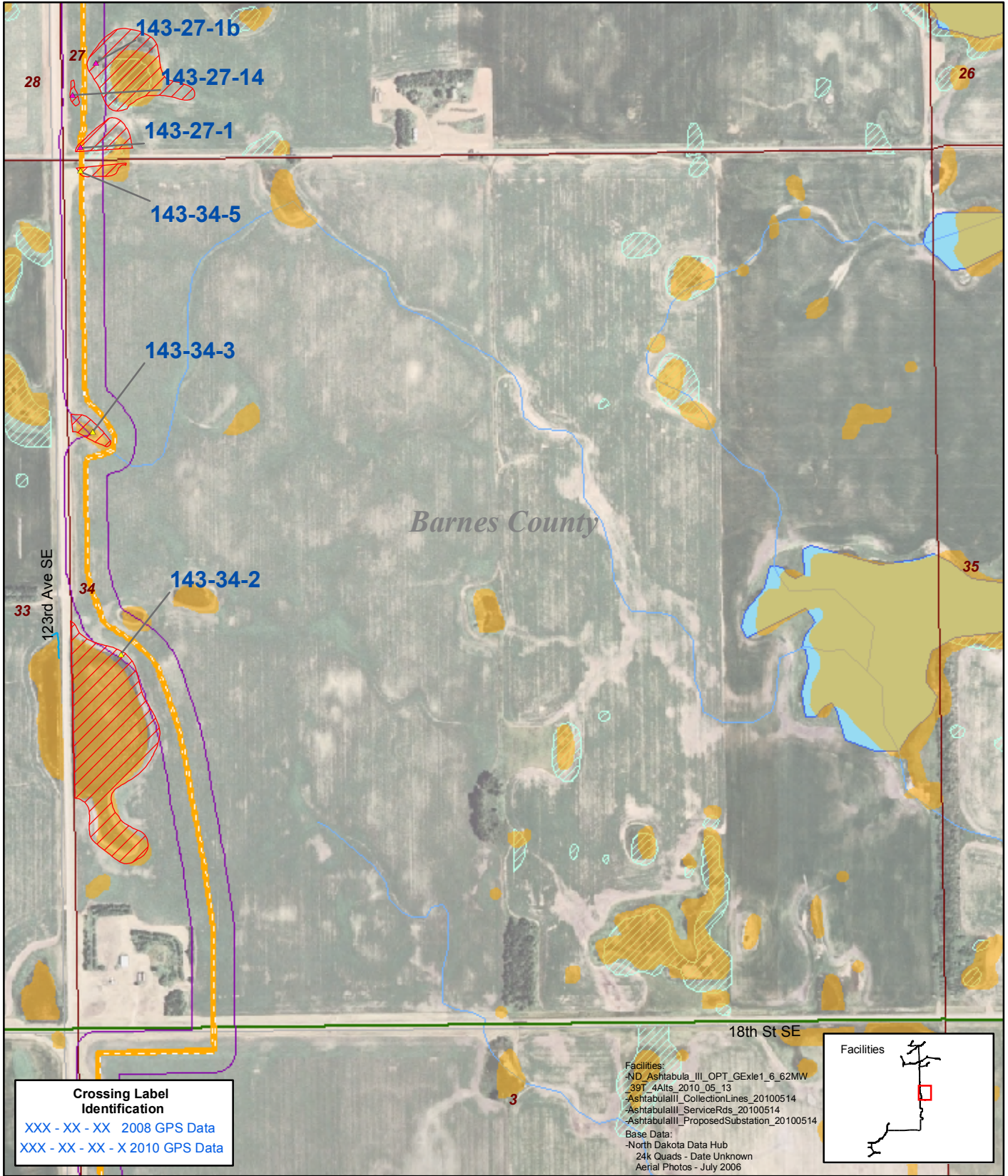
Remarks :

Based on the data collected, this location does not meet the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.



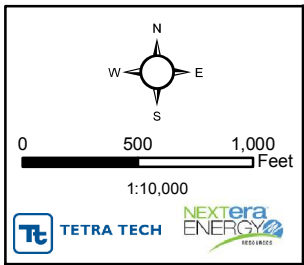
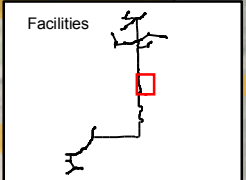
**143-27-14 View Facing North 04/29/08**

**TOWNSHIP 143N**  
**RANGE 57W**  
**SECTION 34**



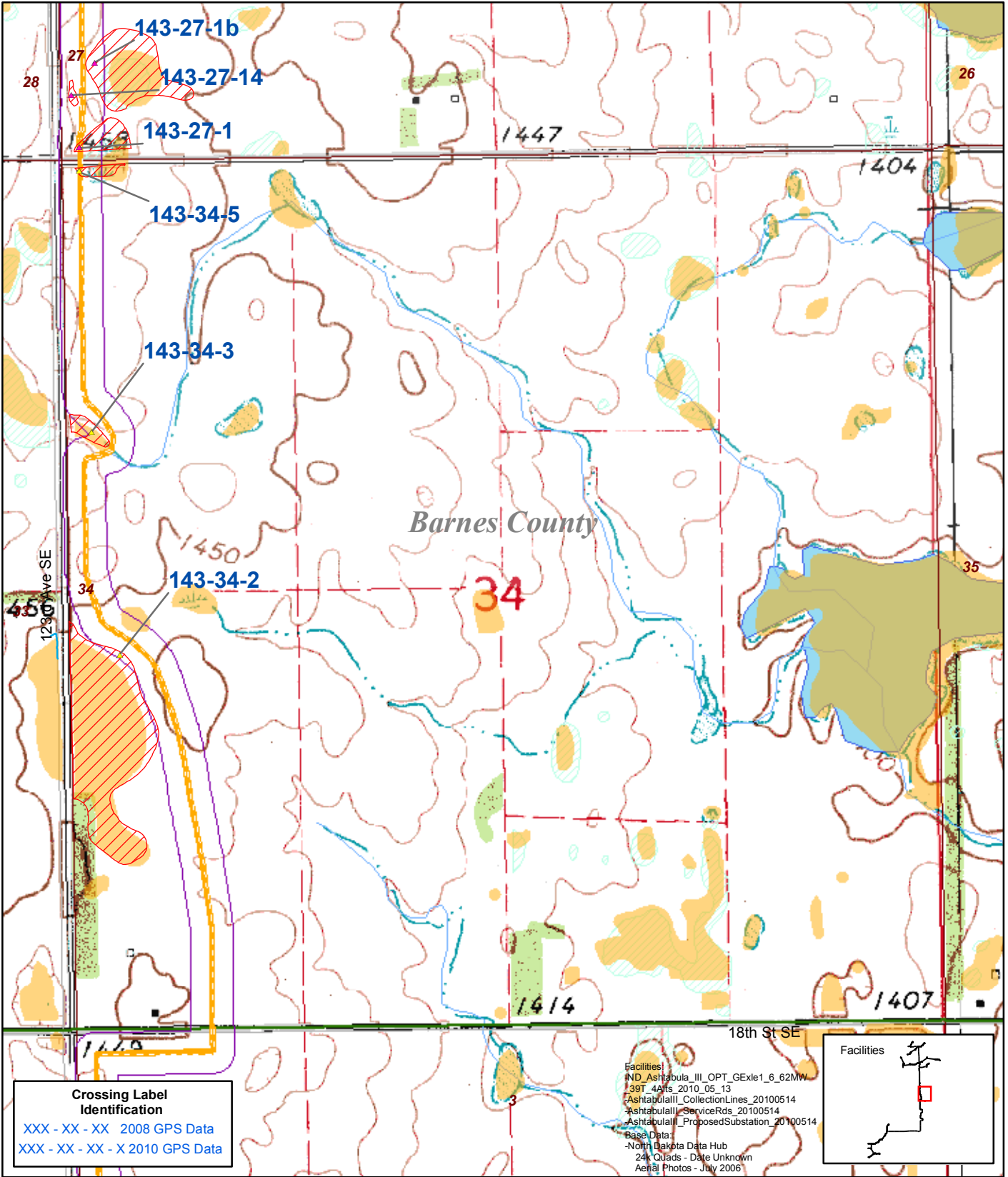
**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

Facilities:  
 -ND\_AshTabula\_III\_OPT\_GExle1\_6\_62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
 Base Data:  
 -North Dakota Data Hub  
 24k Quads - Date Unknown  
 Aerial Photos - July 2006



- |                                       |                          |                                 |
|---------------------------------------|--------------------------|---------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                  |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                          |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ○ NWI Area                      |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                       |
| ▲ USFWS Easement                      | — Collector              | □ Township                      |
| Wetland                               | — Service Road           | □ County                        |
| RPW Boundary                          | ■ Substation             | USFWS Wetland Easement          |
| Wetland Boundary                      | ■ Area of Investigation  | USFWS Easement                  |
|                                       | ■ Lake/Pond              | USFWS Waterfowl Production Area |

June 28, 2010  
 Ashtabula III  
 Wind Energy Center  
 Barnes County, North Dakota  
**T143N  
 R57W  
 Section 34**



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

**TETRA TECH** **NEXTERA ENERGY**

● Crossing Location	● Culvert	~ River/Stream
▲ Non-Jurisdictional Isolated Wetland	● Non-Wetland Data Point	— Road
▲ USACE Jurisdictional	● Wetland Data Point	■ NWI Area
▲ USACE/USFWS Jurisdictional	● Turbine	■ Section
▲ USFWS Easement	— Collector	■ Township
■ Wetland	— Service Road	■ County
— RPW Boundary	■ Substation	■ USFWS Wetland Easement
— Wetland Boundary	■ Area of Investigation	■ USFWS Easement
	■ Lake/Pond	■ USFWS Waterfowl Production Area

June 28, 2010  
**Ashtabula III**  
 Wind Energy Center  
 Barnes County, North Dakota

**T143N**  
**R57W**  
**Section 34**

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
**(1987 COE Wetlands Delineation Manual)**

Project/Site : Ashtabula LLC 143-34-2	Date : 04/29/2008
Applicant/Owner : FPL	County : Barnes
Investigator : GCD/MRE	State : North Dakota
Do Normal Circumstances Exist on the Site ? <input checked="" type="checkbox"/>	Community ID : 143-34-2
Is the Site Significantly Disturbed (Atypical Situation) ? <input type="checkbox"/>	Transect ID : T1
Is the Area a Potential Problem Area ? <input type="checkbox"/> (If needed, explain on reverse.)	Plot ID: A

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Phragmites australis	PNEG	FACW
Phalaris arundinacea	PNG	FACW+	Rumex crispus	PIF	FACW
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)				100.00%	
Remarks :					
P: Perennial		I: Introduced		Vegetation dominated by hydrophytes. Normal circumstances are present.	
N: Native					
E: Emergent					
F: Forb					
G: Grass					

**HYDROLOGY**

<input checked="" type="radio"/> Recorded Data(Describe in Remarks) <input type="checkbox"/> Stream, Lake or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="radio"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b> Primary Indicators : <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated In Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required) <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain In Remarks)
Field Observations  Depth of Surface Water (inches) :  Depth to Saturated Soil (inches) :  Depth to Free water in Pit (inches) :	
Remarks : Photos: View Northeast (Page 1)	

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	<b>SOUTHAM</b>	Drainage Class :	Very poor
(Series and Phase)	ALL	Field Observation	<input type="checkbox"/>
Taxonomy (subgroup)	CUMULIC VERTIC ENDOA(	Confirm Mapped Type	

Profile Description :					
Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc

Hydric Soil Indicators

<input type="checkbox"/> Histosols	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input checked="" type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input checked="" type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks Soil profile not investigated. Listed as hydric soil by NRCS.

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.



**143-34-2 View Facing Northeast 04/29/08**

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
**(1987 COE Wetlands Delineation Manual)**

Project/Site : Ashtabula LLC 143-34-3	Date : 04/29/2008
Applicant/Owner : FPL	County : Barnes
Investigator : GCD/MRE	State : North Dakota
Do Normal Circumstances Exist on the Site ? <input checked="" type="checkbox"/>	Community ID : 143-34-3
Is the Site Significantly Disturbed (Atypical Situation) ? <input type="checkbox"/>	Transect ID : T1
Is the Area a Potential Problem Area ? <input type="checkbox"/> (If needed, explain on reverse.)	Plot ID: A

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha latifolia	PNEF	OBL	Rumex crispus	PIF	FACW
Phragmites australis	PNEG	FACW			
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)			100.00%		
Remarks :					
P: Perennial		G: Grass		Vegetation dominated by hydrophytes. Normal circumstances are present.	
N: Native					
E: Emergent					
F: Forb					
I: Introduced					

**HYDROLOGY**

<input checked="" type="radio"/> Recorded Data(Describe in Remarks) <input type="checkbox"/> Stream, Lake or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="radio"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b> <b>Primary Indicators :</b> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated In Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands <b>Secondary Indicators (2 or more required)</b> <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain In Remarks)
<b>Field Observations</b>  Depth of Surface Water (inches) : 0  Depth to Saturated Soil (inches) : >12  Depth to Free water in Pit (inches) : >12	
Remarks : Photos: View Northeast (Page 1)	

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	<b>PARNELL</b>	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	<input type="checkbox"/>
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :					
Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	5 Y 2.5/1			SiCL 2 msbk
6-16	Bq	5 Y 2.5/1			SiC 3 msbk

Hydric Soil Indicators	
<input type="checkbox"/> Histosols	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input checked="" type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input checked="" type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks  
 Hydric soil was determined to be present. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics.

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks : Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.



**143-34-3 View Facing Northeast 04/29/08**

**DATA FORM**  
**ROUTINE WETLAND DETERMINATION**  
**1987 COE Wetlands Delineation Manual**

~

Project/Site : Ashtabula LLC 143-34-5	Date : 04/29/2008
Applicant/Owner : FPL	County : Barnes
Investigator : GCD/MRE	State : North Dakota
Do Normal Circumstances Exist on the Site ? <input checked="" type="checkbox"/>	Community ID : 143-34-5
Is the Site Significantly Disturbed (Atypical Situation) ? <input type="checkbox"/>	Transect ID : T1
Is the Area a Potential Problem Area ? <input type="checkbox"/> (If needed, explain on reverse.)	Plot ID: A

**VEGETATION**

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
Typha angustifolia	PNEF	OBL	Phalaris arundinacea	PNG	FACW+
Salix sp.	S	OBL			
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)				100.00%	
Remarks : P: Perennial                      G: Grass N: Native                         S: Shrub E: Emergent F: Forb <div style="text-align: right; margin-top: 10px;">Vegetation dominated by hydrophytes.</div>					

**HYDROLOGY**

<input checked="" type="radio"/> Recorded Data(Describe in Remarks) <input type="checkbox"/> Stream, Lake or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="radio"/> No Recorded Data Available	<b>Wetland Hydrology Indicators</b> <b>Primary Indicators :</b> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated In Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands <b>Secondary Indicators (2 or more required)</b> <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain In Remarks)
Field Observations Depth of Surface Water (inches) : 0 Depth to Saturated Soil (inches) : >12 Depth to Free water in Pit (inches) : >12	
Remarks : Photo: View West (Page 1).	

Additional Remarks: The area exhibits characteristic evidence in support of classification of this area as a Water of the United States based on the presence incised cut, defined bed and bank and an ordinary high water mark.

Soil Name	<b>PARNELL</b>	Drainage Class :	Poorly
(Series and Phase)	ALL	Field Observation	<input type="checkbox"/>
Taxonomy (subgroup)	VERTIC ARGIAQUOLLS	Confirm Mapped Type	

Profile Description :					
Depth (Inches)	Horizon	Matrix color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture ,Concretions Structure etc
0-6	A	5 Y 2.5/1			SIC 1 msbk
6-16	Bq	5 Y 2.5/1			SIC 3 msbk

Hydric Soil Indicators

<input type="checkbox"/> Histosols	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input checked="" type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input checked="" type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks: Hydric soil was determined to be present based on low chroma within 12 inches of the surface. Soil profile does not confirm the mapped soil type. These soils have been continuously plowed and disked or otherwise manipulated for the last 100+ years, and hydric indicators present are most likely historic relics. No concretions were detected.

**WETLAND DETERMINATION**

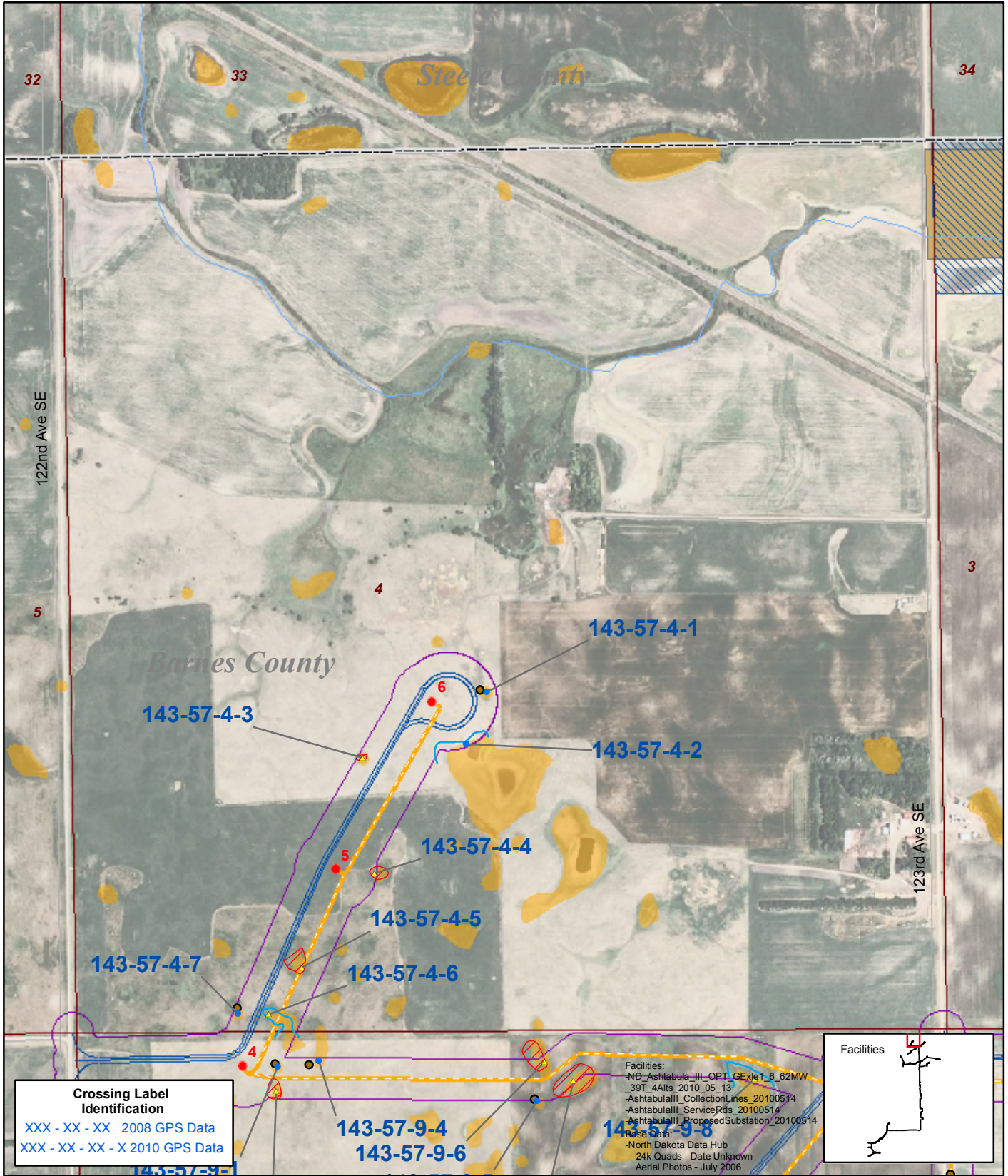
Hydrophytic Vegetation Present ?	Yes	Is this Sampling Point Within a Wetland ?	Yes
Wetland Hydrology Present ?	Yes		
Hydric Soil Present ?	Yes		

Remarks: Based on the data collected, this location meets the definition of a wetland as defined in the USACE 1987 Wetland Delineation manual.



**143-34-5 View Facing West 04/29/08**

**TOWNSHIP 143N**  
**RANGE 57W**  
**SECTION 3**



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

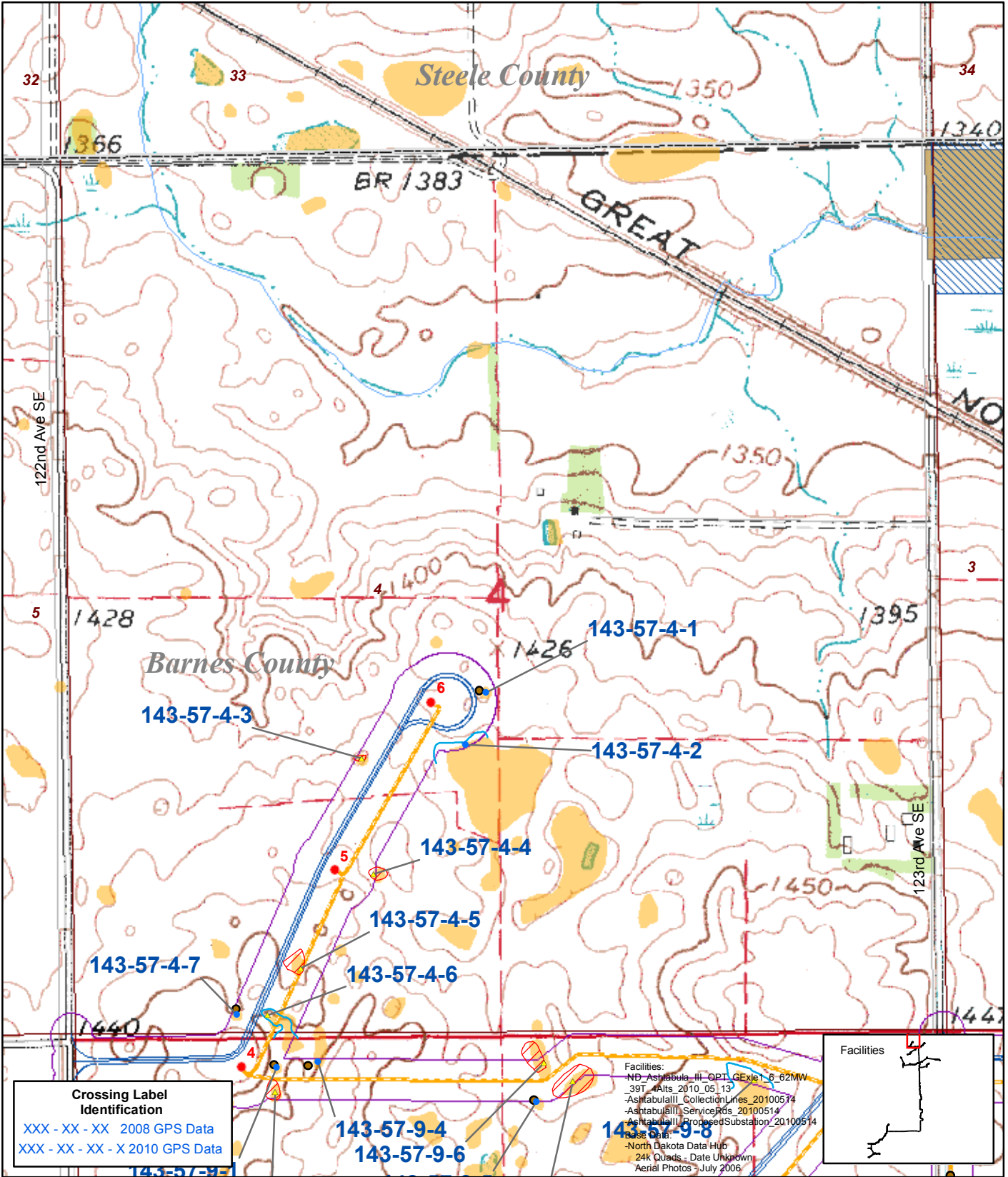
**Facilities:**  
 -ND\_AshTabula\_III\_OPT\_GE1x1\_6\_62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
**Base Data:**  
 -North Dakota Data Hub  
 24K Quads - Date Unknown  
 Aerial Photos - July 2006

0 500 1,000 Feet  
 1:10,000

- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ○ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                         |
| ▲ USFWS Easement                      | — Collector              | □ Township                        |
| Wetland                               | — Service Road           | □ County                          |
| RPW Boundary                          | □ Substation             | □ USFWS Wetland Easement          |
| Wetland Boundary                      | □ Area of Investigation  | □ USFWS Easement                  |
|                                       | □ Lake/Pond              | □ USFWS Waterfowl Production Area |

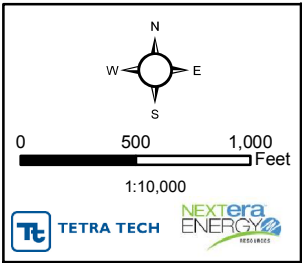
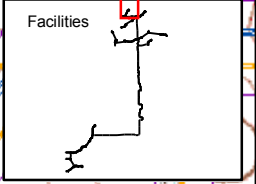
June 28, 2010  
**Ashtabula III**  
**Wind Energy Center**  
 Barnes County, North Dakota

**T143N**  
**R57W**  
**Section 4**



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

**Facilities:**  
 -ND Ashtabula III OPT GE1e1-6 62MW  
 -39T AIts 2010\_05\_13  
 -AshtabulaIII CollectionLines\_20100514  
 -AshtabulaIII ServiceRds\_20100514  
 -AshtabulaIII ProposedSubstation\_20100514  
**Base Data:**  
 -North Dakota Data Hub  
 -24K Quads - Date Unknown  
 -Aerial Photos - July 2006



- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ■ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                         |
| ▲ USFWS Easement                      | — Collector              | □ Township                        |
| Wetland                               | — Service Road           | □ County                          |
| RPW Boundary                          | ■ Substation             | □ USFWS Wetland Easement          |
| Wetland Boundary                      | □ Area of Investigation  | □ USFWS Easement                  |
|                                       | ● Lake/Pond              | ■ USFWS Waterfowl Production Area |

June 28, 2010  
 Ashtabula III  
 Wind Energy Center  
 Barnes County, North Dakota

**T143N  
 R57W  
 Section 4**

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 19-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-3-1  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 3 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Swale **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.230084 **Long.:** -97.884926 **Datum:** NAD 83

**Soil Map Unit Name:** Barnes-Buse loams, 3 to 6 percent slopes **NWI classification:** PEMAd

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)
1. _____	0	<input type="checkbox"/>	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
2. _____	0	<input type="checkbox"/>	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b>
1. _____	0	<input type="checkbox"/>	_____	Total % Cover of: Multiply by:
2. _____	0	<input type="checkbox"/>	_____	OBL species <u>0</u> x 1 = <u>0</u>
3. _____	0	<input type="checkbox"/>	_____	FACW species <u>0</u> x 2 = <u>0</u>
4. _____	0	<input type="checkbox"/>	_____	FAC species <u>0</u> x 3 = <u>0</u>
5. _____	0	<input type="checkbox"/>	_____	FACU species <u>20</u> x 4 = <u>80</u>
	0	<b>= Total Cover</b>		UPL species <u>80</u> x 5 = <u>400</u>
<b>Herb Stratum</b> (Plot size: _____)				<b>Column Totals:</b> <u>100</u> (A) <u>480</u> (B)
1. Taraxacum officinale	20	<input checked="" type="checkbox"/>	20.0% FACU	Prevalence Index = B/A = <u>4.8</u>
2. Zea mays	80	<input checked="" type="checkbox"/>	80.0% UPL	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				
<b>Hydrophytic Vegetation Indicators:</b>				
<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation				
<input type="checkbox"/> 2 - Dominance Test is > 50%				
<input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>				
<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)				
<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.				
<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>				

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

**Soil**

Sampling Point: 143-57-3-1

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	2/1					Silt Loam	

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Water Table Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Saturation Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photo

**Remarks:**

Farmed Swale.



Location 143-57-3-1: Pit 05-19-10



Location 143-57-3-1: Pedon 05-19-10



Location 143-57-3-1: View North 05-19-10



Location 143-57-3-1: View South 05-19-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 19-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-3-2  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 3 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Swale **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.229117 **Long.:** -97.884959 **Datum:** NAD 83

**Soil Map Unit Name:** Barnes-Buse loams, 3 to 6 percent slopes **NWI classification:** PEMAd

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation  , Soil  , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation  , Soil  , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Tree Stratum (Plot size: _____)	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
1. _____	0	<input type="checkbox"/>	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>Sapling/Shrub Stratum (Plot size: _____)</b>				
1. _____	0	<input type="checkbox"/>	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>25</u> x 4 = <u>100</u> UPL species <u>75</u> x 5 = <u>375</u> Column Totals: <u>100</u> (A) <u>475</u> (B)  Prevalence Index = B/A = <u>4.75</u>
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>Herb Stratum (Plot size: _____)</b>				
1. Taraxacum officinale	25	<input checked="" type="checkbox"/>	25.0% FACU	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is > 50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
2. Zea mays	75	<input checked="" type="checkbox"/>	75.0% UPL	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
<b>= Total Cover</b>				
<b>Woody Vine Stratum (Plot size: _____)</b>				
1. _____	0	<input type="checkbox"/>	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
2. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

**Soil**

Sampling Point: 143-57-3-2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	2/1					Silt Loam	

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Water Table Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Saturation Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photo

**Remarks:**

Farmed Swale.



Location 143-57-3-2: Pit 05-19-10



Location 143-57-3-2: Pedon 05-19-10



Location 143-57-3-2: View North 05-19-10



Location 143-57-3-2: View South 05-19-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 19-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-3-3  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 3 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Swale **Local relief (concave, convex, none):** concave **Slope:** 3.0% / 1.7 °  
**Subregion (LRR):** LRR F **Lat.:** 47.226198 **Long.:** -97.891396 **Datum:** NAD 83

**Soil Map Unit Name:** Barnes-Buse loams, 3 to 6 percent slopes **NWI classification:** N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation  , Soil  , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation  , Soil  , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Tree Stratum (Plot size: _____)	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
1. _____	0	<input type="checkbox"/>	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
			<b>= Total Cover</b>	
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>100</u> x 4 = <u>400</u> UPL species <u>0</u> x 5 = <u>0</u> <b>Column Totals:</b> <u>100</u> (A) <u>400</u> (B)  Prevalence Index = B/A = <u>4</u>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
			<b>= Total Cover</b>	
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is > 50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Helianthus annuus	100	<input checked="" type="checkbox"/>	100.0% FACU	
2. _____	0	<input type="checkbox"/>	0.0%	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
			<b>= Total Cover</b>	
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
			<b>= Total Cover</b>	
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

**Soil**

Sampling Point: 143-57-3-3

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	2/1					Silt Loam	

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Water Table Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe)    Yes     No     Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photo

**Remarks:**

Farmed Swale, recently planted.



Location 143-57-3-3: Pit 05-19-10



Location 143-57-3-3: Pedon 05-19-10

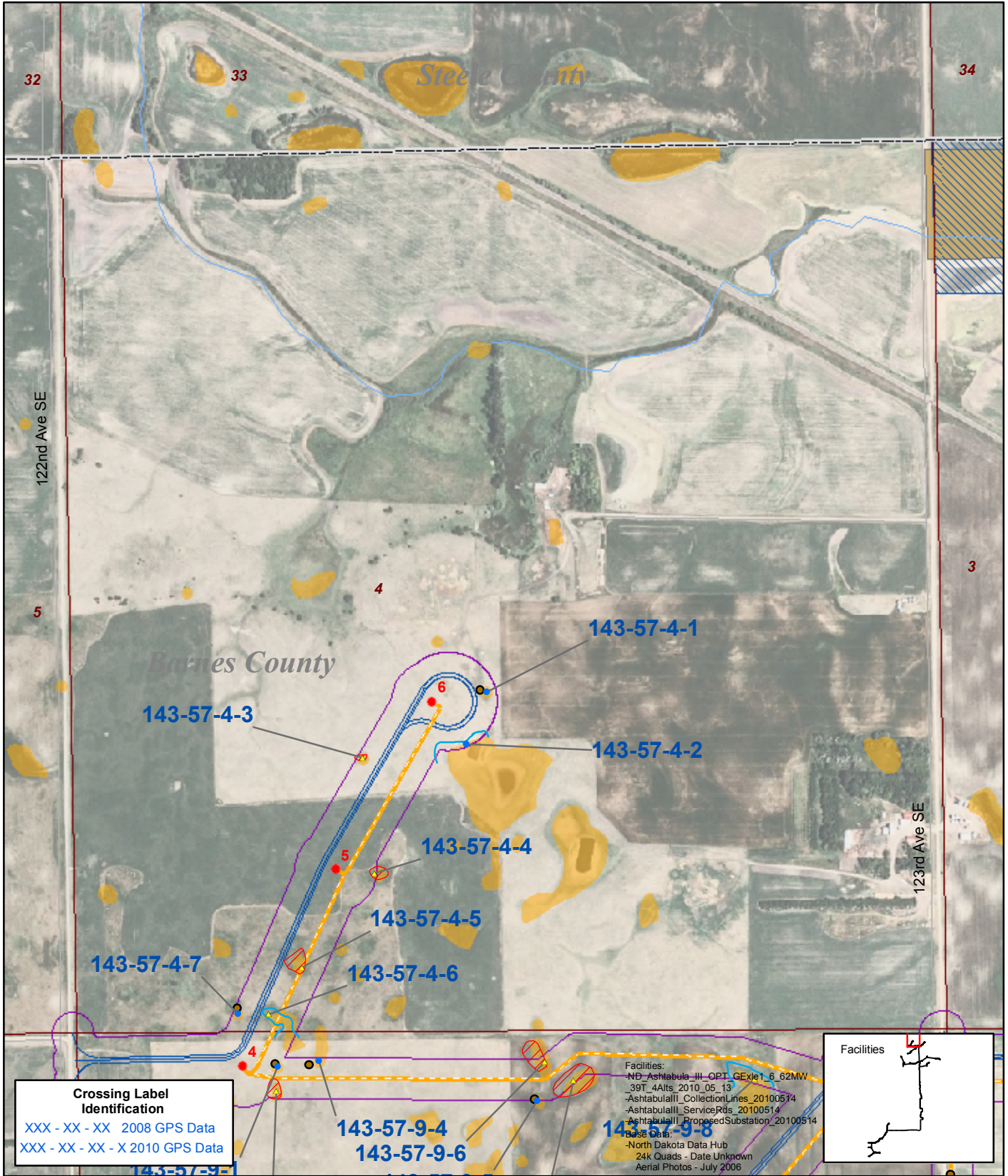


Location 143-57-3-3: View North 05-19-10



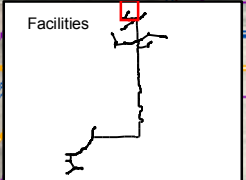
Location 143-57-3-3: View South 05-19-10

**TOWNSHIP 143N**  
**RANGE 57W**  
**SECTION 4**



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

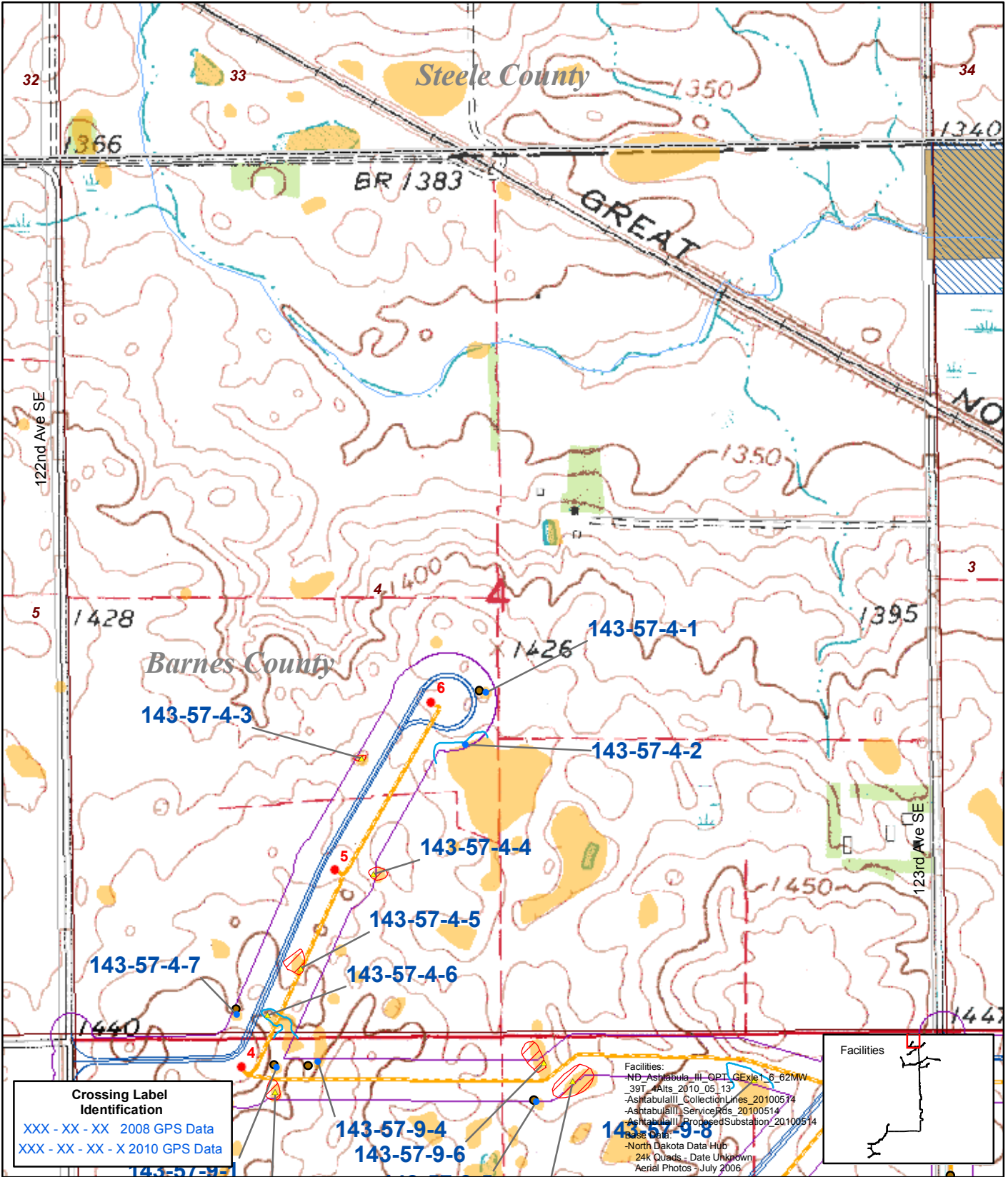
**Facilities:**  
 -ND\_AshTabula\_III\_OPT\_GE1x1\_6\_62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
**Base Data:**  
 -North Dakota Data Hub  
 24K Quads - Date Unknown  
 Aerial Photos - July 2006



- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ■ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                         |
| ▲ USFWS Easement                      | — Collector              | □ Township                        |
| Wetland                               | — Service Road           | □ County                          |
| RPW Boundary                          | ■ Substation             | □ USFWS Wetland Easement          |
| Wetland Boundary                      | □ Area of Investigation  | □ USFWS Easement                  |
|                                       | □ Lake/Pond              | ■ USFWS Waterfowl Production Area |

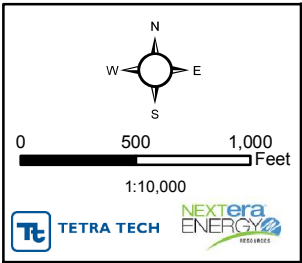
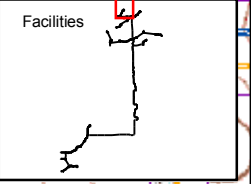
June 28, 2010  
**Ashtabula III**  
**Wind Energy Center**  
 Barnes County, North Dakota

**T143N**  
**R57W**  
**Section 4**



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

**Facilities:**  
 -ND Ashtabula III OPT GE1e1-6 62MW  
 -39T AIts 2010\_05\_13  
 -AshtabulaIII CollectionLines\_20100514  
 -AshtabulaIII ServiceRds\_20100514  
 -AshtabulaIII ProposedSubstation\_20100514  
**Base Data:**  
 -North Dakota Data Hub  
 -24K Quads - Date Unknown  
 -Aerial Photos - July 2006



- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ■ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                         |
| ▲ USFWS Easement                      | — Collector              | □ Township                        |
| Wetland                               | — Service Road           | □ County                          |
| RPW Boundary                          | ■ Substation             | □ USFWS Wetland Easement          |
| Wetland Boundary                      | □ Area of Investigation  | □ USFWS Easement                  |
|                                       | ● Lake/Pond              | ■ USFWS Waterfowl Production Area |

June 28, 2010  
 Ashtabula III  
 Wind Energy Center  
 Barnes County, North Dakota  
**T143N  
 R57W  
 Section 4**

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 20-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-4-1  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 4 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Lowland **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.231532 **Long.:** -97.908542 **Datum:** NAD 83  
**Soil Map Unit Name:** Barnes-Buse loams, 6 to 9 percent slopes **NWI classification:** PEMC

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>50</u> x 4 = <u>200</u> UPL species <u>50</u> x 5 = <u>250</u> Column Totals: <u>100</u> (A) <u>450</u> (B)  Prevalence Index = B/A = <u>4.5</u>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is > 50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Bromus inermis	50	<input checked="" type="checkbox"/>	50.0% UPL	
2. Lolium perenne	30	<input checked="" type="checkbox"/>	30.0% FACU	
3. Trifolium repens	20	<input checked="" type="checkbox"/>	20.0% FACU	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

**Soil**

Sampling Point: 143-57-4-1

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	2/1					Silt Loam	

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

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

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

(MLRA 72 and 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Water Table Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe)    Yes     No     Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photo

**Remarks:**

Cattle Pasture.



Location 143-57-4-1: Pit 05-20-10



Location 143-57-4-1: Pedon 05-20-10



Location 143-57-4-1: View North 05-20-10



Location 143-57-4-1: View South 05-20-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 20-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-4-2  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 4 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.230669 **Long.:** -97.909067 **Datum:** NAD 83  
**Soil Map Unit Name:** Barnes-Buse loams, 9 to 15 percent slopes **NWI classification:** PEMC

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Tree Stratum (Plot size: _____)	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
1. _____	0	<input type="checkbox"/>	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>Sapling/Shrub Stratum (Plot size: _____)</b>				
1. _____	0	<input type="checkbox"/>	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>60</u> x 1 = <u>60</u> FACW species <u>40</u> x 2 = <u>80</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> <b>Column Totals:</b> <u>100</u> (A) <u>140</u> (B)  Prevalence Index = B/A = <u>1.4</u>
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>Herb Stratum (Plot size: _____)</b>				
1. Phalaris arundinacea	40	<input checked="" type="checkbox"/>	40.0% FACW+	
2. Carex aquatilis	60	<input checked="" type="checkbox"/>	60.0% OBL	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
<b>= Total Cover</b>				
<b>Woody Vine Stratum (Plot size: _____)</b>				
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: View North (Page 1), View South (Page 1)





Location 143-57-4-2: View East 05-20-10



Location 143-57-4-2: View West 05-20-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 20-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-4-3  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 4 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Lowland **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.230460 **Long.:** -97.911606 **Datum:** NAD 83

**Soil Map Unit Name:** Barnes-Buse loams, 9 to 15 percent slopes **NWI classification:** PEMC

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Hydric Soil Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Wetland Hydrology Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

**Dominant Species?** FWS Region:

Stratum	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>75.0%</u> (A/B)
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>50</u> x 1 = <u>50</u> FACW species <u>20</u> x 2 = <u>40</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>30</u> x 5 = <u>150</u> <b>Column Totals:</b> <u>100</u> (A) <u>240</u> (B)  Prevalence Index = B/A = <u>2.4</u>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
5. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is > 50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Bromus inermis	30	<input checked="" type="checkbox"/>	30.0% UPL	
2. Phalaris arundinacea	20	<input checked="" type="checkbox"/>	20.0% FACW+	
3. Carex aquatilis	20	<input checked="" type="checkbox"/>	20.0% OBL	
4. Polygonum amphibium	30	<input checked="" type="checkbox"/>	30.0% OBL	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: View North (Page 1), View South (Page 1)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

**Soil**

Sampling Point: 143-57-4-3

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Soil profile not investigated. Listed as hydric by the NRCS.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Water Table Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Saturation Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photo

**Remarks:**

Isolated Wetland - possesses no discreet or confined surface or shallow subsurface connection to a tributary stream eventually flowing into a navigable water of the United States. Therefore, this wetland is not hydrologically connected to a water of the United States.



Location 143-57-4-3: View North 05-20-10



Location 143-57-4-3: View South 05-20-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 20-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-4-4  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 4 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.228535 **Long.:** -97.911358 **Datum:** NAD 83  
**Soil Map Unit Name:** Barnes-Buse loams, 9 to 15 percent slopes **NWI classification:** PEMC

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>70</u> x 1 = <u>70</u> FACW species <u>30</u> x 2 = <u>60</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> <b>Column Totals:</b> <u>100</u> (A) <u>130</u> (B)  Prevalence Index = B/A = <u>1.3</u>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
5. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is > 50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Polygonum amphibium	70	<input checked="" type="checkbox"/>	70.0% OBL	
2. Phalaris arundinacea	30	<input checked="" type="checkbox"/>	30.0% FACW+	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: View North (Page 1), View South (Page 1)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

**Soil**

Sampling Point: 143-57-4-4

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		

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

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

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

**(MLRA 72 and 73 of LRR H)**

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

Remarks:  
Soil profile not investigated. Listed as hydric by the NRCS.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

**Field Observations:**

Surface Water Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>  1  </u>	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
Water Table Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	

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

Remarks:  
Isolated Wetland - possesses no discreet or confined surface or shallow subsurface connection to a tributary stream eventually flowing into a navigable water of the United States. Therefore, this wetland is not hydrologically connected to a water of the United States.



Location 143-57-4-4: View North 05-20-10



Location 143-57-4-4: View South 05-20-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 20-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-4-5  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 4 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.226979 **Long.:** -97.913166 **Datum:** NAD 83

**Soil Map Unit Name:** Buse-Barnes loams, 15 to 35 percent slopes **NWI classification:** PEMC

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants** Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>70</u> x 1 = <u>70</u> FACW species <u>30</u> x 2 = <u>60</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> <b>Column Totals:</b> <u>100</u> (A) <u>130</u> (B)  Prevalence Index = B/A = <u>1.3</u>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
5. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is > 50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Phalaris arundinacea	30	<input checked="" type="checkbox"/>	30.0% FACW+	
2. Polygonum amphibium	40	<input checked="" type="checkbox"/>	40.0% OBL	
3. Scirpus acutus	30	<input checked="" type="checkbox"/>	30.0% OBL	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: View North (Page 1), View South (Page 1)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

**Soil**

Sampling Point: 143-57-4-5

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |
|--|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)                 |
| <input type="checkbox"/> Coastal Prairie Redox (A16) (LRR F, G, H) |
| <input type="checkbox"/> Dark Surface (S7) (LRR G)                 |
| <input type="checkbox"/> High Plains Depressions (F16)             |
| <b>(LRR H outside of MLRA 72 and 73)</b>                           |
| <input type="checkbox"/> Reduced Vertic (F18)                      |
| <input type="checkbox"/> Red Parent Material (TF2)                 |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12)          |
| <input type="checkbox"/> Other (Explain in Remarks)                |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Soil profile not investigated. Listed as hydric by the NRCS.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Surface Soil Cracks (B6)                   |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)    |
| <input type="checkbox"/> Drainage Patterns (B10)                    |
| <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |
| <b>(where tilled)</b>   |
| <input type="checkbox"/> Crayfish Burrows (C8)                      |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  |
| <input type="checkbox"/> Geomorphic Position (D2)                   |
| <input checked="" type="checkbox"/> FAC-neutral Test (D5)           |
| <input type="checkbox"/> Frost Heave Hummocks (D7) (LRR F)          |

**Field Observations:**

Surface Water Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>4</u>
Water Table Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photo \_\_\_\_\_

**Remarks:**

Isolated Wetland - possesses no discreet or confined surface or shallow subsurface connection to a tributary stream eventually flowing into a navigable water of the United States. Therefore, this wetland is not hydrologically connected to a water of the United States.



Location 143-57-4-5: View North 05-20-10



Location 143-57-4-5: View South 05-20-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 20-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-4-6  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 4 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.226200 **Long.:** -97.913997 **Datum:** NAD 83

**Soil Map Unit Name:** Buse-Barnes loams, 15 to 35 percent slopes **NWI classification:** PEMC

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation  , Soil  , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation  , Soil  , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Tree Stratum (Plot size: _____)	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
1. _____	0	<input type="checkbox"/>	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>Sapling/Shrub Stratum (Plot size: _____)</b>				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>70</u> x 1 = <u>70</u> FACW species <u>30</u> x 2 = <u>60</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> <b>Column Totals:</b> <u>100</u> (A) <u>130</u> (B)  Prevalence Index = B/A = <u>1.3</u>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>Herb Stratum (Plot size: _____)</b>				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is > 50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Typha angustifolia	30	<input checked="" type="checkbox"/>	30.0% OBL	
2. Phalaris arundinacea	30	<input checked="" type="checkbox"/>	30.0% FACW+	
3. Scirpus acutus	40	<input checked="" type="checkbox"/>	40.0% OBL	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
<b>= Total Cover</b>				
<b>Woody Vine Stratum (Plot size: _____)</b>				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: View North (Page 1), View South (Page 1)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

**Soil**

Sampling Point: 143-57-4-6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

Remarks:  
 Soil profile not investigated. Listed as hydric by the NRCS.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches):   4  

Water Table Present?    Yes     No     Depth (inches): \_\_\_\_\_

Saturation Present?  
 (includes capillary fringe)    Yes     No     Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photo

Remarks:  
 Isolated Wetland - possesses no discreet or confined surface or shallow subsurface connection to a tributary stream eventually flowing into a navigable water of the United States. Therefore, this wetland is not hydrologically connected to a water of the United States.



Location 143-57-4-6: View North 05-20-10



Location 143-57-4-6: View South 05-20-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 20-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-4-7  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 4 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Lowland **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.226214 **Long.:** -97.914749 **Datum:** NAD 83

**Soil Map Unit Name:** Buse-Barnes loams, 15 to 35 percent slopes **NWI classification:** PEMA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation  , Soil  , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation  , Soil  , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Tree Stratum (Plot size: _____)	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
1. _____	0	<input type="checkbox"/>	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>Sapling/Shrub Stratum (Plot size: _____)</b>				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>30</u> x 4 = <u>120</u> UPL species <u>70</u> x 5 = <u>350</u> Column Totals: <u>100</u> (A) <u>470</u> (B)  Prevalence Index = B/A = <u>4.7</u>
1. Symphoricarpos orbiculatus	100	<input checked="" type="checkbox"/>	100.0% NI	
2. _____	0	<input type="checkbox"/>	0.0%	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
<b>= Total Cover</b>				
<b>Herb Stratum (Plot size: _____)</b>				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is > 50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Bromus inermis	70	<input checked="" type="checkbox"/>	70.0% UPL	
2. Lolium perenne	30	<input checked="" type="checkbox"/>	30.0% FACU	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
<b>= Total Cover</b>				
<b>Woody Vine Stratum (Plot size: _____)</b>				<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

**Soil**

Sampling Point: 143-57-4-7

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	2/1					Silt Loam	

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

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

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

(MLRA 72 and 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Water Table Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe)    Yes     No     Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photo

**Remarks:**

Cattle Pasture.



Location 143-57-4-7: Pit 05-20-10



Location 143-57-4-7: Pedon 05-20-10

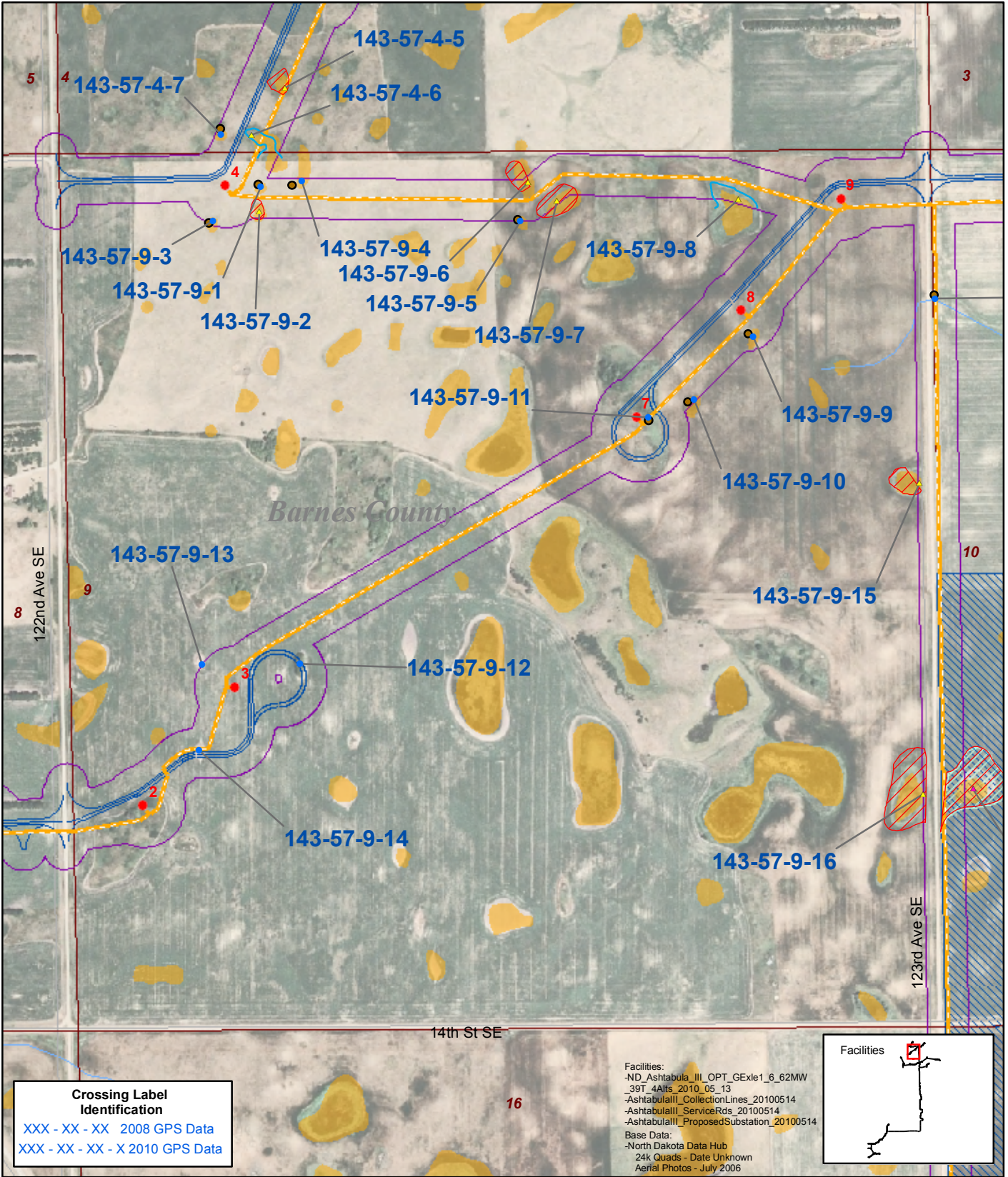


Location 143-57-4-7: View North 05-20-10



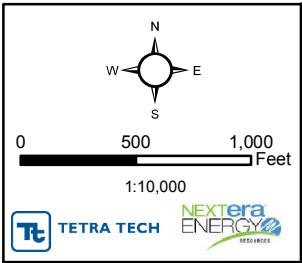
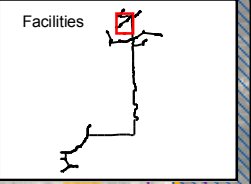
Location 143-57-4-7: View South 05-20-10

**TOWNSHIP 143N**  
**RANGE 57W**  
**SECTION 9**



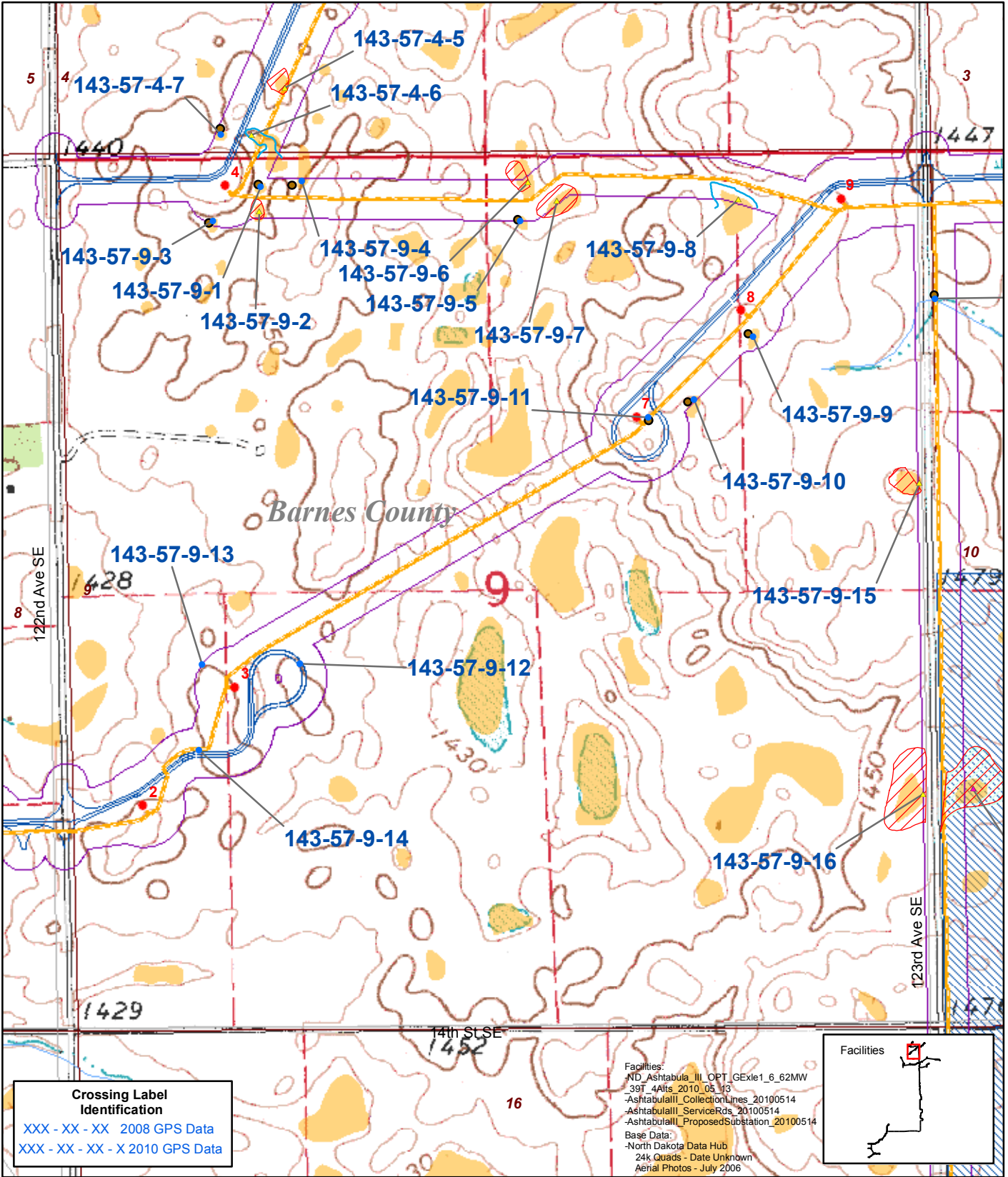
**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

**Facilities:**  
 -ND\_AshTabula\_III\_OPT\_GE1x1\_6\_62MW  
 -39T\_4AITS\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
**Base Data:**  
 -North Dakota Data Hub  
 24K Quads - Date Unknown  
 Aerial Photos - July 2006



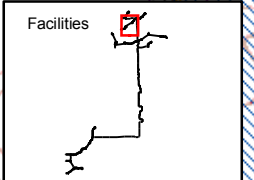
- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ■ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                         |
| ▲ USFWS Easement                      | ● Collector              | □ Township                        |
| Wetland                               | — Service Road           | □ County                          |
| RPW Boundary                          | ■ Substation             | □ USFWS Wetland Easement          |
| Wetland Boundary                      | ■ Area of Investigation  | □ USFWS Easement                  |
|                                       | ■ Lake/Pond              | ■ USFWS Waterfowl Production Area |

June 28, 2010  
**Ashtabula III**  
**Wind Energy Center**  
 Barnes County, North Dakota  
**T143N**  
**R57W**  
**Section 9**



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

**Facilities:**  
 -ND\_Ashabula\_III\_OPT\_GE1x1\_6\_62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
**Base Data:**  
 -North Dakota Data Hub  
 24K Quads - Date Unknown  
 Aerial Photos - July 2006



- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ■ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                         |
| ▲ USFWS Easement                      | ● Collector              | □ Township                        |
| Wetland                               | — Service Road           | □ County                          |
| RPW Boundary                          | ■ Substation             | □ USFWS Wetland Easement          |
| Wetland Boundary                      | ■ Area of Investigation  | □ USFWS Easement                  |
|                                       | ■ Lake/Pond              | ■ USFWS Waterfowl Production Area |

June 28, 2010  
**Ashtabula III**  
**Wind Energy Center**  
 Barnes County, North Dakota  
**T143N**  
**R57W**  
**Section 9**

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 19-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-9-1  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 9 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Lowland **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.225328 **Long.:** -97.913794 **Datum:** NAD 83  
**Soil Map Unit Name:** Barnes-Buse loams, 9 to 15 percent slopes **NWI classification:** PEMC

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Tree Stratum (Plot size: _____)	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
1. _____	0	<input type="checkbox"/>	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
			<b>= Total Cover</b>	
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>60</u> x 4 = <u>240</u> UPL species <u>40</u> x 5 = <u>200</u> <b>Column Totals:</b> <u>100</u> (A) <u>440</u> (B)  Prevalence Index = B/A = <u>4.4</u>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
			<b>= Total Cover</b>	
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is > 50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Bromus inermis	40	<input checked="" type="checkbox"/>	40.0% UPL	
2. Taraxacum officinale	30	<input checked="" type="checkbox"/>	30.0% FACU	
3. Lolium perenne	20	<input checked="" type="checkbox"/>	20.0% FACU	
4. Trifolium repens	10	<input type="checkbox"/>	10.0% FACU	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
			<b>= Total Cover</b>	
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
			<b>= Total Cover</b>	
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

**Soil**

Sampling Point: 143-57-9-1

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	2/1					Silt Loam	

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

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

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

(MLRA 72 and 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes  No

**Remarks:**

Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes  No  Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes  No

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

Aerial Photo

**Remarks:**

Cattle Pasture.



Location 143-57-9-1: Pit 05-19-10



Location 143-57-9-1: Pedon 05-19-10



Location 143-57-9-1: View North 05-19-10



Location 143-57-9-1: View South 05-19-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 19-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-9-2  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 9 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.224918 **Long.:** -97.913830 **Datum:** NAD 83  
**Soil Map Unit Name:** Barnes-Buse loams, 9 to 15 percent slopes **NWI classification:** PEMC

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Hydric Soil Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Wetland Hydrology Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

**Dominant Species?** FWS Region:

Stratum	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>70</u> x 1 = <u>70</u> FACW species <u>30</u> x 2 = <u>60</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> <b>Column Totals:</b> <u>100</u> (A) <u>130</u> (B)  Prevalence Index = B/A = <u>1.3</u>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
5. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is > 50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Scirpus acutus	50	<input checked="" type="checkbox"/>	50.0% OBL	
2. Phalaris arundinacea	30	<input checked="" type="checkbox"/>	30.0% FACW+	
3. Carex aquatilis	20	<input checked="" type="checkbox"/>	20.0% OBL	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: View North (Page 1), View South (Page 1)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

**Soil**

Sampling Point: 143-57-9-2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |
|--|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)                 |
| <input type="checkbox"/> Coastal Prairie Redox (A16) (LRR F, G, H) |
| <input type="checkbox"/> Dark Surface (S7) (LRR G)                 |
| <input type="checkbox"/> High Plains Depressions (F16)             |
| <b>(LRR H outside of MLRA 72 and 73)</b>                           |
| <input type="checkbox"/> Reduced Vertic (F18)                      |
| <input type="checkbox"/> Red Parent Material (TF2)                 |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12)          |
| <input type="checkbox"/> Other (Explain in Remarks)                |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Soil profile not investigated. Listed as hydric by the NRCS.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Surface Soil Cracks (B6)                   |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)    |
| <input type="checkbox"/> Drainage Patterns (B10)                    |
| <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |
| <b>(where tilled)</b>   |
| <input type="checkbox"/> Crayfish Burrows (C8)                      |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  |
| <input type="checkbox"/> Geomorphic Position (D2)                   |
| <input checked="" type="checkbox"/> FAC-neutral Test (D5)           |
| <input type="checkbox"/> Frost Heave Hummocks (D7) (LRR F)          |

**Field Observations:**

Surface Water Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>2</u>
Water Table Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photo

**Remarks:**

Isolated Wetland - possesses no discreet or confined surface or shallow subsurface connection to a tributary stream eventually flowing into a navigable water of the United States. Therefore, this wetland is not hydrologically connected to a water of the United States.



Location 143-57-9-2: View North 05-19-10



Location 143-57-9-2: View South 05-19-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 19-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-9-3  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 9 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Valley bottom **Local relief (concave, convex, none):** concave **Slope:** 3.0% / 1.7 °  
**Subregion (LRR):** LRR F **Lat.:** 47.224779 **Long.:** -97.914970 **Datum:** NAD 83  
**Soil Map Unit Name:** Barnes-Buse loams, 9 to 15 percent slopes **NWI classification:** PEMA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/> <b>Hydric Soil Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Wetland Hydrology Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)
1. _____	0	<input type="checkbox"/>	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
2. _____	0	<input type="checkbox"/>	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b>
1. <i>Symphoricarpos orbiculatus</i>	100	<input checked="" type="checkbox"/>	100.0% NI	Total % Cover of: Multiply by:
2. _____	0	<input type="checkbox"/>	0.0%	OBL species <u>0</u> x 1 = <u>0</u>
3. _____	0	<input type="checkbox"/>	0.0%	FACW species <u>0</u> x 2 = <u>0</u>
4. _____	0	<input type="checkbox"/>	0.0%	FAC species <u>0</u> x 3 = <u>0</u>
5. _____	0	<input type="checkbox"/>	0.0%	FACU species <u>60</u> x 4 = <u>240</u>
	100	<b>= Total Cover</b>		UPL species <u>40</u> x 5 = <u>200</u>
<b>Herb Stratum</b> (Plot size: _____)				<b>Column Totals:</b> <u>100</u> (A) <u>440</u> (B)
1. <i>Bromus inermis</i>	40	<input checked="" type="checkbox"/>	40.0% UPL	Prevalence Index = B/A = <u>4.4</u>
2. <i>Lolium perenne</i>	40	<input checked="" type="checkbox"/>	40.0% FACU	
3. <i>Taraxacum officinale</i>	20	<input checked="" type="checkbox"/>	20.0% FACU	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation  
 2 - Dominance Test is > 50%  
 3 - Prevalence Index is ≤ 3.0<sup>1</sup>  
 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.

**Hydrophytic Vegetation Present?** Yes  No

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

**Soil**

Sampling Point: 143-57-9-3

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	2/1					Silt Loam	

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Water Table Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Saturation Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photo

**Remarks:**

Cattle Pasture.



Location 143-57-9-3: Pit 05-19-10



Location 143-57-9-3: Pedon 05-19-10



Location 143-57-9-3: View North 05-19-10



Location 143-57-9-3: View South 05-19-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 19-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-9-4  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 9 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Lowland **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.225422 **Long.:** -97.912780 **Datum:** NAD 83  
**Soil Map Unit Name:** Barnes-Buse loams, 9 to 15 percent slopes **NWI classification:** PEMC

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>60</u> x 4 = <u>240</u> UPL species <u>40</u> x 5 = <u>200</u> <b>Column Totals:</b> <u>100</u> (A) <u>440</u> (B)  Prevalence Index = B/A = <u>4.4</u>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
5. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is > 50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Bromus inermis	40	<input checked="" type="checkbox"/>	40.0% UPL	
2. Taraxacum officinale	30	<input checked="" type="checkbox"/>	30.0% FACU	
3. Trifolium repens	20	<input checked="" type="checkbox"/>	20.0% FACU	
4. Lolium perenne	10	<input type="checkbox"/>	10.0% FACU	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

**Soil**

Sampling Point: 143-57-9-4

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	2/1					Silt Loam	

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

Remarks:  
 Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Water Table Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe)    Yes     No     Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photo

Remarks:  
 Cattle Pasture.



Location 143-57-9-4: Pit 05-19-10



Location 143-57-9-4: Pedon 05-19-10



Location 143-57-9-4: View North 05-19-10



Location 143-57-9-4: View South 05-19-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 19-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-9-5  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 9 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Lowland **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.224697 **Long.:** -97.907456 **Datum:** NAD 83

**Soil Map Unit Name:** Barnes-Buse loams, 6 to 9 percent slopes **NWI classification:** PEMA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation  , Soil  , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation  , Soil  , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

**Dominant Species?** FWS Region:

Tree Stratum (Plot size: _____)	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
1. _____	0	<input type="checkbox"/>	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>100</u> x 5 = <u>500</u> Column Totals: <u>100</u> (A) <u>500</u> (B)  Prevalence Index = B/A = <u>5</u>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is > 50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Glycine max	100	<input checked="" type="checkbox"/>	100.0% UPL	
2. _____	0	<input type="checkbox"/>	0.0%	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
<b>= Total Cover</b>				
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

**Soil**

Sampling Point: 143-57-9-5

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	3/1					Silt Loam	

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Water Table Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe)    Yes     No     Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photo

**Remarks:**

Nothing Evident, Farmed Through - Site shows no evident signs of a typical hydrophytic vegetative community, and is presently or has recently been farmed.



Location 143-57-9-5: Pit 05-19-10



Location 143-57-9-5: Pedon 05-19-10



Location 143-57-9-5: View North 05-19-10



Location 143-57-9-5: View South 05-19-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 19-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-9-6  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 9 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 3.0% / 1.7 °  
**Subregion (LRR):** LRR F **Lat.:** 47.225348 **Long.:** -97.907251 **Datum:** NAD 83  
**Soil Map Unit Name:** Barnes-Buse loams, 9 to 15 percent slopes **NWI classification:** PEMA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>80</u> x 1 = <u>80</u> FACW species <u>20</u> x 2 = <u>40</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> <b>Column Totals:</b> <u>100</u> (A) <u>120</u> (B)  Prevalence Index = B/A = <u>1.2</u>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
5. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is > 50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Phalaris arundinacea	20	<input checked="" type="checkbox"/>	20.0% FACW+	
2. Carex aquatilis	20	<input checked="" type="checkbox"/>	20.0% OBL	
3. Polygonum amphibium	60	<input checked="" type="checkbox"/>	60.0% OBL	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: View North (Page 1), View South (Page 1)

**Soil**

Sampling Point: 143-57-9-6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		

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

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

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                             | <input type="checkbox"/> Sandy Gleyed Matrix S4        |
| <input type="checkbox"/> Histic Epipedon (A2)                      | <input type="checkbox"/> Sandy Redox (S5)              |
| <input type="checkbox"/> Black Histic (A3)                         | <input type="checkbox"/> Stripped Matrix (S6)          |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                     | <input type="checkbox"/> Loamy Mucky Mineral (F1)      |
| <input type="checkbox"/> Stratified Layers (A5) (LRR F)            | <input type="checkbox"/> Loamy Gleyed Matrix (F2)      |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR F,G,H)                | <input type="checkbox"/> Depleted Matrix (F3)          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)         | <input type="checkbox"/> Redox Dark Surface (F6)       |
| <input type="checkbox"/> Thick Dark Surface (A12)                  | <input type="checkbox"/> Depleted Dark Surface (F7)    |
| <input type="checkbox"/> Sandy Muck Mineral (S1)                   | <input type="checkbox"/> Redox depressions (F8)        |
| <input type="checkbox"/> 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) | <input type="checkbox"/> High Plains Depressions (F16) |
| <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR F)      |  |

(MLRA 72 and 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes  No

**Remarks:**

Soil profile not investigated. Listed as hydric by the NRCS.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

**Secondary Indicators (minimum of two required)**

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

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches): 2  
 Water Table Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes  No  Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes  No

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

Aerial Photo

**Remarks:**

Isolated Wetland - possesses no discreet or confined surface or shallow subsurface connection to a tributary stream eventually flowing into a navigable water of the United States. Therefore, this wetland is not hydrologically connected to a water of the United States.



Location 143-57-9-6: View North 05-19-10



Location 143-57-9-6: View South 05-19-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 19-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-9-7  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 9 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 3.0% / 1.7 °  
**Subregion (LRR):** LRR F **Lat.:** 47.225036 **Long.:** -97.906554 **Datum:** NAD 83

**Soil Map Unit Name:** Barnes-Buse loams, 6 to 9 percent slopes **NWI classification:** PEMC

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation  , Soil  , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation  , Soil  , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Tree Stratum (Plot size: _____)	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
1. _____	0	<input type="checkbox"/>	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>Sapling/Shrub Stratum (Plot size: _____)</b>				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>70</u> x 1 = <u>70</u> FACW species <u>30</u> x 2 = <u>60</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>100</u> (A) <u>130</u> (B) Prevalence Index = B/A = <u>1.3</u>
1. Phalaris arundinacea	30	<input checked="" type="checkbox"/>	30.0% FACW+	
2. Polygonum amphibium	30	<input checked="" type="checkbox"/>	30.0% OBL	
3. Carex aquatilis	20	<input checked="" type="checkbox"/>	20.0% OBL	
4. Scirpus acutus	20	<input checked="" type="checkbox"/>	20.0% OBL	
5. _____	0	<input type="checkbox"/>	0.0% _____	
<b>= Total Cover</b>				
<b>Herb Stratum (Plot size: _____)</b>				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is > 50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
6. _____	0	<input type="checkbox"/>	_____	
7. _____	0	<input type="checkbox"/>	_____	
8. _____	0	<input type="checkbox"/>	_____	
9. _____	0	<input type="checkbox"/>	_____	
10. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>Woody Vine Stratum (Plot size: _____)</b>				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: View North (Page 1), View South (Page 1)

**Soil**

Sampling Point: 143-57-9-7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		

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

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

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                             | <input type="checkbox"/> Sandy Gleyed Matrix S4        |
| <input type="checkbox"/> Histic Epipedon (A2)                      | <input type="checkbox"/> Sandy Redox (S5)              |
| <input type="checkbox"/> Black Histic (A3)                         | <input type="checkbox"/> Stripped Matrix (S6)          |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                     | <input type="checkbox"/> Loamy Mucky Mineral (F1)      |
| <input type="checkbox"/> Stratified Layers (A5) (LRR F)            | <input type="checkbox"/> Loamy Gleyed Matrix (F2)      |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR F,G,H)                | <input type="checkbox"/> Depleted Matrix (F3)          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)         | <input type="checkbox"/> Redox Dark Surface (F6)       |
| <input type="checkbox"/> Thick Dark Surface (A12)                  | <input type="checkbox"/> Depleted Dark Surface (F7)    |
| <input type="checkbox"/> Sandy Muck Mineral (S1)                   | <input type="checkbox"/> Redox depressions (F8)        |
| <input type="checkbox"/> 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) | <input type="checkbox"/> High Plains Depressions (F16) |
| <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR F)      |  |

(MLRA 72 and 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present?    Yes     No

Remarks:

Soil profile not investigated. Listed as hydric by the NRCS.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches):     3      
 Water Table Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe)    Yes     No     Depth (inches): \_\_\_\_\_

Wetland Hydrology Present?    Yes     No

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

Aerial Photo

Remarks:

Isolated Wetland - possesses no discreet or confined surface or shallow subsurface connection to a tributary stream eventually flowing into a navigable water of the United States. Therefore, this wetland is not hydrologically connected to a water of the United States.



Location 143-57-9-7: View North 05-19-10



Location 143-57-9-7: View South 05-19-10

## WETLAND DETERMINATION DATA FORM - Great Plains Region

**Project/Site:** Ashtabula 3 Wind Energy Center      **City/County:** Barnes      **Sampling Date:** 19-May-10  
**Applicant/Owner:** NextEra      **State:** ND      **Sampling Point:** 143-57-9-8  
**Investigator(s):** MRE/CAY      **Section, Township, Range:** S 9      T 143      R 57  
**Landform (hillslope, terrace, etc.):** Pothole      **Local relief (concave, convex, none):** concave      **Slope:** 3.0% / 1.7 °  
**Subregion (LRR):** LRR F      **Lat.:** 47.225016      **Long.:** -97.902111      **Datum:** NAD 83  
**Soil Map Unit Name:** Barnes-Buse loams, 9 to 15 percent slopes      **NWI classification:** PEMC

**Are climatic/hydrologic conditions on the site typical for this time of year?**      Yes  No       (If no, explain in Remarks.)  
**Are Vegetation**  , **Soil**  , **or Hydrology**  **significantly disturbed?**      **Are "Normal Circumstances" present?**      Yes  No   
**Are Vegetation**  , **Soil**  , **or Hydrology**  **naturally problematic?**      (If needed, explain any answers in Remarks.)

### Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Hydric Soil Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Wetland Hydrology Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

### VEGETATION - Use scientific names of plants Dominant Species? FWS Region:

Tree Stratum (Plot size: _____)	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
1. _____	0	<input type="checkbox"/>	_____	Number of Dominant Species That are OBL, FACW, or FAC: <span style="float: right;">4 (A)</span>  Total Number of Dominant Species Across All Strata: <span style="float: right;">4 (B)</span>  Percent of dominant Species That Are OBL, FACW, or FAC: <span style="float: right;">100.0% (A/B)</span>
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>			0	
<b>Sapling/Shrub Stratum (Plot size: _____)</b>				
1. _____	0	<input type="checkbox"/>	_____	<b>Prevalence Index worksheet:</b> Total % Cover of:      Multiply by: OBL species      70      x 1 =      70 FACW species      30      x 2 =      60 FAC species      0      x 3 =      0 FACU species      0      x 4 =      0 UPL species      0      x 5 =      0 <b>Column Totals:</b> 100 (A)      130 (B)  Prevalence Index = B/A = <span style="float: right;">1.3</span>
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>			0	
<b>Herb Stratum (Plot size: _____)</b>				
1. Phalaris arundinacea	30	<input checked="" type="checkbox"/>	30.0% FACW+	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is > 50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
2. Typha angustifolia	20	<input checked="" type="checkbox"/>	20.0% OBL	
3. Carex aquatilis	20	<input checked="" type="checkbox"/>	20.0% OBL	
4. Polygonum amphibium	30	<input checked="" type="checkbox"/>	30.0% OBL	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
<b>= Total Cover</b>			100	
<b>Woody Vine Stratum (Plot size: _____)</b>				
1. _____	0	<input type="checkbox"/>	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
2. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>			0	
<b>% Bare Ground in Herb Stratum</b> 0				

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: View North (Page 1), View South (Page 1)

**Soil**

**Sampling Point: 143-57-9-8**

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |  |
|--|--|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)                 |  |
| <input type="checkbox"/> Coastal Prairie Redox (A16) (LRR F, G, H) |  |
| <input type="checkbox"/> Dark Surface (S7) (LRR G)                 |  |
| <input type="checkbox"/> High Plains Depressions (F16)             |  |
| <b>(LRR H outside of MLRA 72 and 73)</b>                           |  |
| <input type="checkbox"/> Reduced Vertic (F18)                      |  |
| <input type="checkbox"/> Red Parent Material (TF2)                 |  |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12)          |  |
| <input type="checkbox"/> Other (Explain in Remarks)                |  |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes  No

**Remarks:**

Soil profile not investigated. Listed as hydric by the NRCS.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

- |   |  |
|---|--|
| <input type="checkbox"/> Surface Soil Cracks (B6)                   |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)    |  |
| <input type="checkbox"/> Drainage Patterns (B10)                    |  |
| <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |  |
| <b>(where tilled)</b>   |  |
| <input type="checkbox"/> Crayfish Burrows (C8)                      |  |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  |  |
| <input checked="" type="checkbox"/> Geomorphic Position (D2)        |  |
| <input checked="" type="checkbox"/> FAC-neutral Test (D5)           |  |
| <input type="checkbox"/> Frost Heave Hummocks (D7) (LRR F)          |  |

**Field Observations:**

Surface Water Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>8</u>
Water Table Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____

**Wetland Hydrology Present?** Yes  No

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

Aerial Photo

**Remarks:**

Isolated wetland - possesses no discreet or confined surface or shallow subsurface connection to a tributary stream eventually flowing into a navigable water of the United States. Therefore, this wetland is not hydrologically connected to a water of the United States.



Location 143-57-9-8: View North 05-19-10



Location 143-57-9-8: View South 05-19-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 19-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-9-9  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 9 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Lowland **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.222721 **Long.:** -97.901804 **Datum:** NAD 83  
**Soil Map Unit Name:** Barnes-Buse loams, 6 to 9 percent slopes **NWI classification:** PEMA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants** Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)
1. _____	0	<input type="checkbox"/>	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)
2. _____	0	<input type="checkbox"/>	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b>
1. _____	0	<input type="checkbox"/>	_____	Total % Cover of: _____ Multiply by: _____
2. _____	0	<input type="checkbox"/>	_____	OBL species <u>0</u> x 1 = <u>0</u>
3. _____	0	<input type="checkbox"/>	_____	FACW species <u>0</u> x 2 = <u>0</u>
4. _____	0	<input type="checkbox"/>	_____	FAC species <u>0</u> x 3 = <u>0</u>
5. _____	0	<input type="checkbox"/>	_____	FACU species <u>0</u> x 4 = <u>0</u>
	0	<b>= Total Cover</b>		UPL species <u>100</u> x 5 = <u>500</u>
<b>Herb Stratum</b> (Plot size: _____)				<b>Column Totals:</b> <u>100</u> (A) <u>500</u> (B)
1. Glycine max	100	<input checked="" type="checkbox"/>	100.0% UPL	Prevalence Index = B/A = <u>5</u>
2. _____	0	<input type="checkbox"/>	0.0%	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b>
1. _____	0	<input type="checkbox"/>	_____	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. _____	0	<input type="checkbox"/>	_____	<input type="checkbox"/> 2 - Dominance Test is > 50%
	0	<b>= Total Cover</b>		<input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
				<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
				<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

**Soil**

Sampling Point: 143-57-9-9

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	2/1					Silt Loam	

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

Remarks:  
Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Water Table Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe)    Yes     No     Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photo

Remarks:  
Nothing Evident, Farmed Through - Site shows no evident signs of a typical hydrophytic vegetative community, and is presently or has recently been farmed.



Location 143-57-9-9: Pit 05-19-10



Location 143-57-9-9: Pedon 05-19-10



Location 143-57-9-9: View North 05-19-10



Location 143-57-9-9: View South 05-19-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 19-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-9-10  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 9 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.221690 **Long.:** -97.903264 **Datum:** NAD 83  
**Soil Map Unit Name:** Barnes-Buse loams, 9 to 15 percent slopes **NWI classification:** PEMA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants** Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)
1. _____	0	<input type="checkbox"/>		Total Number of Dominant Species Across All Strata: <u>0</u> (B)
2. _____	0	<input type="checkbox"/>		Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b>
1. _____	0	<input type="checkbox"/>		Total % Cover of: <u>0</u> Multiply by: _____
2. _____	0	<input type="checkbox"/>		OBL species <u>0</u> x 1 = <u>0</u>
3. _____	0	<input type="checkbox"/>		FACW species <u>0</u> x 2 = <u>0</u>
4. _____	0	<input type="checkbox"/>		FAC species <u>0</u> x 3 = <u>0</u>
5. _____	0	<input type="checkbox"/>		FACU species <u>0</u> x 4 = <u>0</u>
	0	<b>= Total Cover</b>		UPL species <u>0</u> x 5 = <u>0</u>
<b>Herb Stratum</b> (Plot size: _____)				<b>Column Totals:</b> <u>0</u> (A) <u>0</u> (B)
1. Glycine max	0	<input type="checkbox"/>	UPL	Prevalence Index = B/A = <u>0</u>
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
5. _____	0	<input type="checkbox"/>		
6. _____	0	<input type="checkbox"/>		
7. _____	0	<input type="checkbox"/>		
8. _____	0	<input type="checkbox"/>		
9. _____	0	<input type="checkbox"/>		
10. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b>
1. _____	0	<input type="checkbox"/>		<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. _____	0	<input type="checkbox"/>		<input type="checkbox"/> 2 - Dominance Test is > 50%
	0	<b>= Total Cover</b>		<input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
				<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
				<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

**Soil**

Sampling Point: 143-57-9-10

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	2/1					Silt Loam	

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |
|--|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)                 |
| <input type="checkbox"/> Coastal Prairie Redox (A16) (LRR F, G, H) |
| <input type="checkbox"/> Dark Surface (S7) (LRR G)                 |
| <input type="checkbox"/> High Plains Depressions (F16)             |
| <b>(LRR H outside of MLRA 72 and 73)</b>                           |
| <input type="checkbox"/> Reduced Vertic (F18)                      |
| <input type="checkbox"/> Red Parent Material (TF2)                 |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12)          |
| <input type="checkbox"/> Other (Explain in Remarks)                |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Surface Soil Cracks (B6)                   |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)    |
| <input type="checkbox"/> Drainage Patterns (B10)                    |
| <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |
| <b>(where tilled)</b>   |
| <input type="checkbox"/> Crayfish Burrows (C8)                      |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  |
| <input type="checkbox"/> Geomorphic Position (D2)                   |
| <input type="checkbox"/> FAC-neutral Test (D5)                      |
| <input type="checkbox"/> Frost Heave Hummocks (D7) (LRR F)          |

**Field Observations:**

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

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photo

**Remarks:**

Nothing Evident, Farmed Through - Site shows no evident signs of a typical hydrophytic vegetative community, and is presently or has recently been farmed.



Location 143-57-9-10: Pit 05-19-10



Location 143-57-9-10: Pedon 05-19-10



Location 143-57-9-10: View North 05-19-10



Location 143-57-9-10: View South 05-19-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

Project/Site: Ashtabula 3 Wind Energy Center City/County: Barnes Sampling Date: 19-May-10  
 Applicant/Owner: NextEra State: ND Sampling Point: **143-57-9-11**  
 Investigator(s): MRE/CAY Section, Township, Range: **S 9 T 143 R 57**  
 Landform (hillslope, terrace, etc.): Hillside Local relief (concave, convex, none): convex Slope: 2.0% / 1.1°  
 Subregion (LRR): LRR F Lat.: 47.221399 Long.: -97.904384 Datum: NAD 83  
 Soil Map Unit Name: Buse-Barnes loams, 15 to 35 percent slopes NWI classification: N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				
1. <u>Prunus americana</u>	100	<input checked="" type="checkbox"/> 100.0%	UPL	Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	0	<input type="checkbox"/> 0.0%		Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____	0	<input type="checkbox"/> 0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
4. _____	0	<input type="checkbox"/> 0.0%		
	100	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				
1. <u>Symphoricarpos orbiculatus</u>	100	<input checked="" type="checkbox"/> 100.0%	NI	<b>Prevalence Index worksheet:</b> Total % Cover of:      Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>40</u> x 4 = <u>160</u> UPL species <u>160</u> x 5 = <u>800</u> <b>Column Totals:</b> <u>200</u> (A) <u>960</u> (B) Prevalence Index = B/A = <u>4.8</u>
2. _____	0	<input type="checkbox"/> 0.0%		
3. _____	0	<input type="checkbox"/> 0.0%		
4. _____	0	<input type="checkbox"/> 0.0%		
5. _____	0	<input type="checkbox"/> 0.0%		
	100	<b>= Total Cover</b>		
<b>Herb Stratum</b> (Plot size: _____)				
1. <u>Bromus inermis</u>	60	<input checked="" type="checkbox"/> 60.0%	UPL	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is > 50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
2. <u>Trifolium repens</u>	20	<input checked="" type="checkbox"/> 20.0%	FACU	
3. <u>Lolium perenne</u>	20	<input checked="" type="checkbox"/> 20.0%	FACU	
4. _____	0	<input type="checkbox"/> 0.0%		
5. _____	0	<input type="checkbox"/> 0.0%		
6. _____	0	<input type="checkbox"/> 0.0%		
7. _____	0	<input type="checkbox"/> 0.0%		
8. _____	0	<input type="checkbox"/> 0.0%		
9. _____	0	<input type="checkbox"/> 0.0%		
10. _____	0	<input type="checkbox"/> 0.0%		
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	0	<input type="checkbox"/>		<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
2. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

**Soil**

Sampling Point: 143-57-9-11

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	3/1					Silt Loam	

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |
|--|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)                 |
| <input type="checkbox"/> Coastal Prairie Redox (A16) (LRR F, G, H) |
| <input type="checkbox"/> Dark Surface (S7) (LRR G)                 |
| <input type="checkbox"/> High Plains Depressions (F16)             |
| <b>(LRR H outside of MLRA 72 and 73)</b>                           |
| <input type="checkbox"/> Reduced Vertic (F18)                      |
| <input type="checkbox"/> Red Parent Material (TF2)                 |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12)          |
| <input type="checkbox"/> Other (Explain in Remarks)                |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Hydric soil was determined not to be present based on lack of hydric indicators within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Surface Soil Cracks (B6)                   |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)    |
| <input type="checkbox"/> Drainage Patterns (B10)                    |
| <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |
| <b>(where tilled)</b>   |
| <input type="checkbox"/> Crayfish Burrows (C8)                      |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  |
| <input type="checkbox"/> Geomorphic Position (D2)                   |
| <input type="checkbox"/> FAC-neutral Test (D5)                      |
| <input type="checkbox"/> Frost Heave Hummocks (D7) (LRR F)          |

**Field Observations:**

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

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photo

**Remarks:**

Grassland.



Location 143-57-9-11: Pit 05-19-10



Location 143-57-9-11: Pedon 05-19-10



Location 143-57-9-11: View North 05-19-10



Location 143-57-9-11: View South 05-19-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 19-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-9-12  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 9 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Knob **Local relief (concave, convex, none):** convex **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.217377 **Long.:** -97.912997 **Datum:** NAD 83

**Soil Map Unit Name:** Barnes-Buse loams, 6 to 9 percent slopes **NWI classification:** N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation  , Soil  , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation  , Soil  , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Tree Stratum (Plot size: _____)	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
1. _____	0	<input type="checkbox"/>	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
			<b>= Total Cover</b>	
<b>Sapling/Shrub Stratum (Plot size: _____)</b>				
1. _____	0	<input type="checkbox"/>	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>30</u> x 4 = <u>120</u> UPL species <u>70</u> x 5 = <u>350</u> Column Totals: <u>100</u> (A) <u>470</u> (B)  Prevalence Index = B/A = <u>4.7</u>
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
			<b>= Total Cover</b>	
<b>Herb Stratum (Plot size: _____)</b>				
1. Bromus inermis	70	<input checked="" type="checkbox"/>	70.0% UPL	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is > 50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
2. Amaranthus retroflexus	20	<input checked="" type="checkbox"/>	20.0% FACU	
3. Taraxacum officinale	10	<input type="checkbox"/>	10.0% FACU	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
			<b>= Total Cover</b>	
<b>Woody Vine Stratum (Plot size: _____)</b>				
1. _____	0	<input type="checkbox"/>	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
2. _____	0	<input type="checkbox"/>	_____	
			<b>= Total Cover</b>	
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: View East (Page 1)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

**Soil**

Sampling Point: 143-57-9-12

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

Remarks:  
 Soil profile not investigated. Listed as hydric by the NRCS.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Water Table Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Saturation Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photo \_\_\_\_\_

Remarks:  
 Rock pile.



Location 143-57-9-12: View East 05-19-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 19-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-9-13  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 9 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Knob **Local relief (concave, convex, none):** convex **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.217381 **Long.:** -97.915381 **Datum:** NAD 83  
**Soil Map Unit Name:** Barnes-Buse loams, 6 to 9 percent slopes **NWI classification:** N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)
1. _____	0	<input type="checkbox"/>	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
2. _____	0	<input type="checkbox"/>	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b>
1. _____	0	<input type="checkbox"/>	_____	Total % Cover of: _____ Multiply by: _____
2. _____	0	<input type="checkbox"/>	_____	OBL species <u>0</u> x 1 = <u>0</u>
3. _____	0	<input type="checkbox"/>	_____	FACW species <u>0</u> x 2 = <u>0</u>
4. _____	0	<input type="checkbox"/>	_____	FAC species <u>0</u> x 3 = <u>0</u>
5. _____	0	<input type="checkbox"/>	_____	FACU species <u>40</u> x 4 = <u>160</u>
	0	<b>= Total Cover</b>		UPL species <u>60</u> x 5 = <u>300</u>
<b>Herb Stratum</b> (Plot size: _____)				<b>Column Totals:</b> <u>100</u> (A) <u>460</u> (B)
1. Bromus inermis	60	<input checked="" type="checkbox"/>	60.0% UPL	Prevalence Index = B/A = <u>4.6</u>
2. Amaranthus retroflexus	40	<input checked="" type="checkbox"/>	40.0% FACU	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b>
1. _____	0	<input type="checkbox"/>	_____	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. _____	0	<input type="checkbox"/>	_____	<input type="checkbox"/> 2 - Dominance Test is > 50%
	0	<b>= Total Cover</b>		<input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
				<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
				<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: View North (Page 1)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

**Soil**

Sampling Point: 143-57-9-13

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |  |
|--|--|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)                 |  |
| <input type="checkbox"/> Coastal Prairie Redox (A16) (LRR F, G, H) |  |
| <input type="checkbox"/> Dark Surface (S7) (LRR G)                 |  |
| <input type="checkbox"/> High Plains Depressions (F16)             |  |
| <b>(LRR H outside of MLRA 72 and 73)</b>                           |  |
| <input type="checkbox"/> Reduced Vertic (F18)                      |  |
| <input type="checkbox"/> Red Parent Material (TF2)                 |  |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12)          |  |
| <input type="checkbox"/> Other (Explain in Remarks)                |  |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

Remarks:  
 Soil profile not investigated. Listed as hydric by the NRCS.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

- |   |  |
|---|--|
| <input type="checkbox"/> Surface Soil Cracks (B6)                   |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)    |  |
| <input type="checkbox"/> Drainage Patterns (B10)                    |  |
| <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |  |
| <b>(where tilled)</b>   |  |
| <input type="checkbox"/> Crayfish Burrows (C8)                      |  |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  |  |
| <input type="checkbox"/> Geomorphic Position (D2)                   |  |
| <input type="checkbox"/> FAC-neutral Test (D5)                      |  |
| <input type="checkbox"/> Frost Heave Hummocks (D7) (LRR F)          |  |

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Water Table Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe)    Yes     No     Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photo

Remarks:  
 Rock pile.



Location 143-57-9-13: View North 05-19-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 19-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-9-14  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 9 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Top of Hill **Local relief (concave, convex, none):** convex **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.215963 **Long.:** -97.915492 **Datum:** NAD 83  
**Soil Map Unit Name:** Barnes-Buse loams, 6 to 9 percent slopes **NWI classification:** N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Tree Stratum (Plot size: _____)	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
1. _____	0	<input type="checkbox"/>	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>30</u> x 4 = <u>120</u> UPL species <u>70</u> x 5 = <u>350</u> <b>Column Totals:</b> <u>100</u> (A) <u>470</u> (B)  Prevalence Index = B/A = <u>4.7</u>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is > 50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Bromus inermis	70	<input checked="" type="checkbox"/>	70.0% UPL	
2. Amaranthus retroflexus	30	<input checked="" type="checkbox"/>	30.0% FACU	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
<b>= Total Cover</b>				
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: View North (Page 1)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

**Soil**

Sampling Point: 143-57-9-14

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |  |
|--|--|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)                 |  |
| <input type="checkbox"/> Coastal Prairie Redox (A16) (LRR F, G, H) |  |
| <input type="checkbox"/> Dark Surface (S7) (LRR G)                 |  |
| <input type="checkbox"/> High Plains Depressions (F16)             |  |
| <b>(LRR H outside of MLRA 72 and 73)</b>                           |  |
| <input type="checkbox"/> Reduced Vertic (F18)                      |  |
| <input type="checkbox"/> Red Parent Material (TF2)                 |  |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12)          |  |
| <input type="checkbox"/> Other (Explain in Remarks)                |  |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Soil profile not investigated. Listed as hydric by the NRCS.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

- |   |  |
|---|--|
| <input type="checkbox"/> Surface Soil Cracks (B6)                   |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)    |  |
| <input type="checkbox"/> Drainage Patterns (B10)                    |  |
| <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |  |
| <b>(where tilled)</b>   |  |
| <input type="checkbox"/> Crayfish Burrows (C8)                      |  |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  |  |
| <input type="checkbox"/> Geomorphic Position (D2)                   |  |
| <input type="checkbox"/> FAC-neutral Test (D5)                      |  |
| <input type="checkbox"/> Frost Heave Hummocks (D7) (LRR F)          |  |

**Field Observations:**

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

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photo \_\_\_\_\_

**Remarks:**

Rock pile.



Location 143-57-9-14: View North 05-19-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 19-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-9-15  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 9 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.220238 **Long.:** -97.897785 **Datum:** NAD 83  
**Soil Map Unit Name:** Barnes-Buse loams, 3 to 6 percent slopes **NWI classification:** PEMC

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants** Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>80</u> x 1 = <u>80</u> FACW species <u>20</u> x 2 = <u>40</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> <b>Column Totals:</b> <u>100</u> (A) <u>120</u> (B)  Prevalence Index = B/A = <u>1.2</u>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
5. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is > 50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Typha angustifolia	50	<input checked="" type="checkbox"/>	50.0% OBL	
2. Polygonum amphibium	30	<input checked="" type="checkbox"/>	30.0% OBL	
3. Phalaris arundinacea	20	<input checked="" type="checkbox"/>	20.0% FACW+	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: View North (Page 1), View South (Page 1)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: 143-57-9-15

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes  No

**Remarks:**

Soil profile not investigated. Listed as hydric by the NRCS.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches): 4

Water Table Present? Yes  No  Depth (inches): \_\_\_\_\_

Saturation Present? (includes capillary fringe) Yes  No  Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes  No

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

Aerial Photo

**Remarks:**

Isolated Wetland - possesses no discreet or confined surface or shallow subsurface connection to a tributary stream eventually flowing into a navigable water of the United States. Therefore, this wetland is not hydrologically connected to a water of the United States.



Location 143-57-9-15: View North 05-19-10



Location 143-57-9-15: View South 05-19-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 19-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-9-16  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 9 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.215057 **Long.:** -97.897796 **Datum:** NAD 83  
**Soil Map Unit Name:** Barnes-Buse loams, 6 to 9 percent slopes **NWI classification:** PEMC

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A)
1. _____	0	<input type="checkbox"/>	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
2. _____	0	<input type="checkbox"/>	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>75.0%</u> (A/B)
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b>
1. _____	0	<input type="checkbox"/>	_____	Total % Cover of: Multiply by:
2. _____	0	<input type="checkbox"/>	_____	OBL species <u>60</u> x 1 = <u>60</u>
3. _____	0	<input type="checkbox"/>	_____	FACW species <u>0</u> x 2 = <u>0</u>
4. _____	0	<input type="checkbox"/>	_____	FAC species <u>0</u> x 3 = <u>0</u>
5. _____	0	<input type="checkbox"/>	_____	FACU species <u>0</u> x 4 = <u>0</u>
	0	<b>= Total Cover</b>		UPL species <u>0</u> x 5 = <u>0</u>
<b>Herb Stratum</b> (Plot size: _____)				<b>Column Totals:</b> <u>60</u> (A) <u>60</u> (B)
1. Typa	40	<input checked="" type="checkbox"/>	40.0%	Prevalence Index = B/A = <u>1</u>
2. Polygonum amphibium	20	<input checked="" type="checkbox"/>	20.0% OBL	
3. Carex aquatilis	20	<input checked="" type="checkbox"/>	20.0% OBL	
4. Scirpus acutus	20	<input checked="" type="checkbox"/>	20.0% OBL	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation  
 2 - Dominance Test is > 50%  
 3 - Prevalence Index is ≤ 3.0<sup>1</sup>  
 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes  No

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: View North (Page 1), View South (Page 1)

**Soil**

Sampling Point: 143-57-9-16

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Soil profile not investigated. Listed as hydric by the NRCS.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches): 8

Water Table Present?    Yes     No     Depth (inches): \_\_\_\_\_

Saturation Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photo

**Remarks:**

Isolated Wetland - possesses no discreet or confined surface or shallow subsurface connection to a tributary stream eventually flowing into a navigable water of the United States. Therefore, this wetland is not hydrologically connected to a water of the United States.

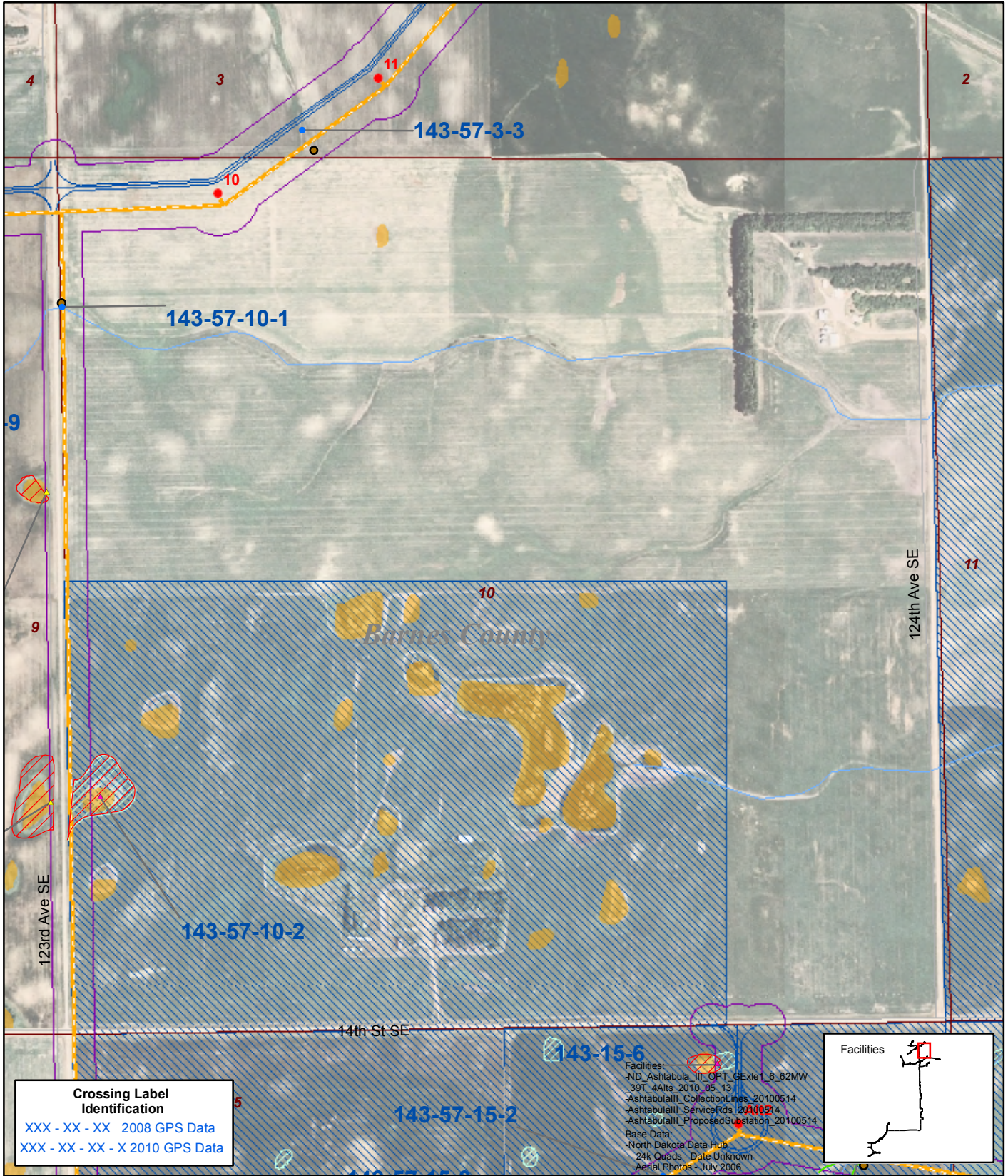


Location 143-57-9-16: View North 05-19-10



Location 143-57-9-16: View South 05-19-10

**TOWNSHIP 143N**  
**RANGE 57W**  
**SECTION 10**



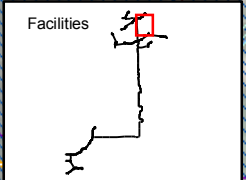
**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

**Facilities**

- ND\_AshTabula\_III\_OPT\_GExle1\_6\_62MW
- 39T\_4AIts\_2010\_05\_13
- AshtabulaIII\_CollectionLines\_20100514
- AshtabulaIII\_ServiceRds\_120100514
- AshtabulaIII\_ProposedSubstation\_20100514

**Base Data:**

- North Dakota Data Hub
- 24k Quads - Date Unknown
- Aerial Photos - July 2006

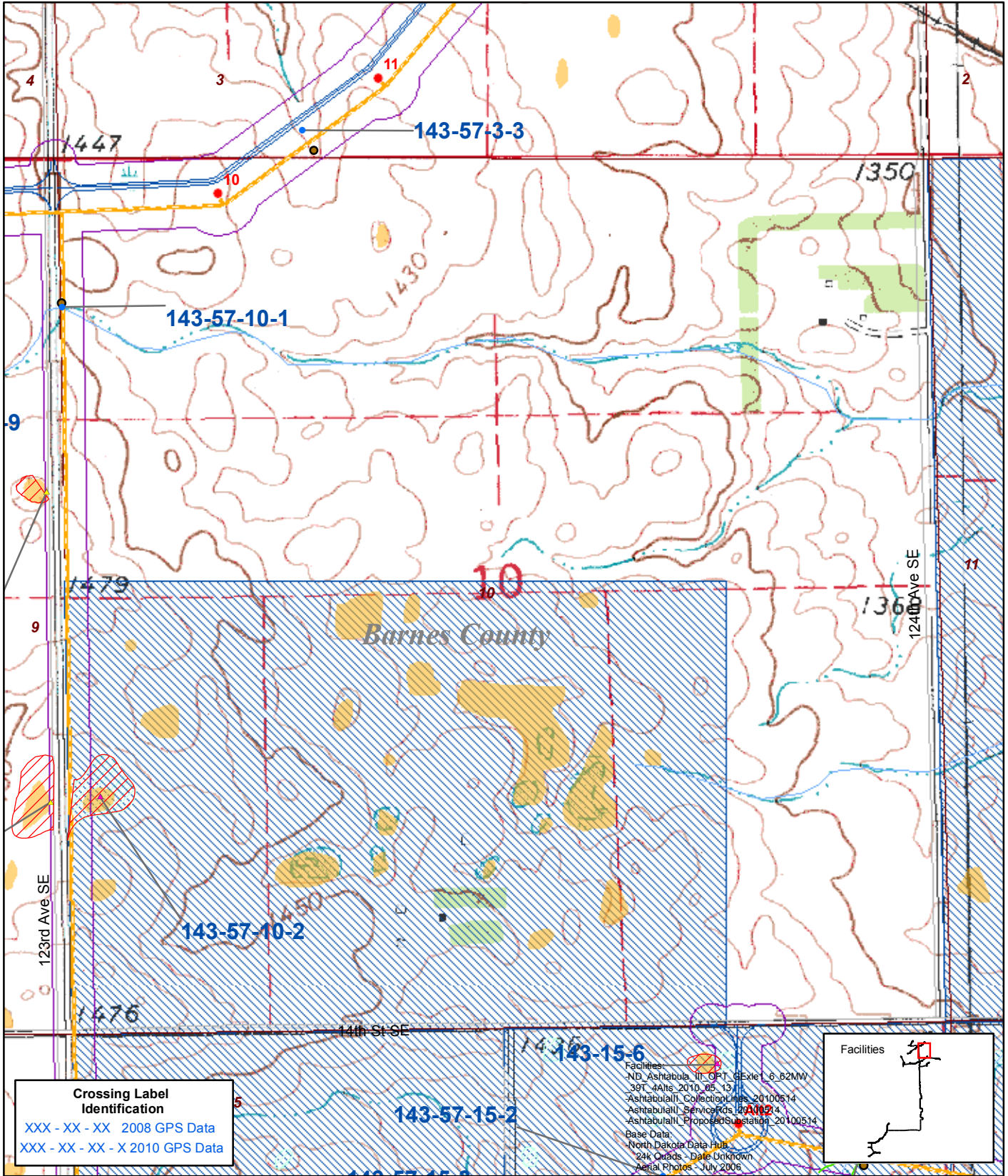


0 500 1,000 Feet  
1:10,000

- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ■ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                         |
| ▲ USFWS Easement                      | — Collector              | □ Township                        |
| Wetland                               | — Service Road           | □ County                          |
| RPW Boundary                          | ■ Substation             | □ USFWS Wetland Easement          |
| Wetland Boundary                      | ■ Area of Investigation  | □ USFWS Easement                  |
|                                       | ■ Lake/Pond              | ■ USFWS Waterfowl Production Area |

June 28, 2010  
**Ashtabula III**  
**Wind Energy Center**  
 Barnes County, North Dakota

**T143N**  
**R57W**  
**Section 10**



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

Facilities  
 -ND\_AshTabula\_III\_OPT\_6x16.6-62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_12/2012  
 -AshtabulaIII\_ProposedSubstation\_20100514  
 Base Data:  
 -North Dakota Data Hub  
 -24k Quads - Date Unknown  
 -Aerial Photos - July 2006

0 500 1,000 Feet  
 1:10,000  
**TETRA TECH** **NEXTERA ENERGY RESOURCES**

- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ■ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                         |
| ▲ USFWS Easement                      | ● Collector              | □ Township                        |
| Wetland                               | — Service Road           | □ County                          |
| RPW Boundary                          | ■ Substation             | □ USFWS Wetland Easement          |
| Wetland Boundary                      | ■ Area of Investigation  | □ USFWS Easement                  |
|                                       | ■ Lake/Pond              | ■ USFWS Waterfowl Production Area |

June 28, 2010  
**Ashtabula III**  
**Wind Energy Center**  
 Barnes County, North Dakota  
**T143N**  
**R57W**  
**Section 10**

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 19-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-10-1  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 10 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Swale **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.223311 **Long.:** -97.897338 **Datum:** NAD 83

**Soil Map Unit Name:** Barnes-Buse loams, 6 to 9 percent slopes **NWI classification:** N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Tree Stratum (Plot size: _____)	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
1. _____	0	<input type="checkbox"/>	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>100</u> x 5 = <u>500</u> <b>Column Totals:</b> <u>100</u> (A) <u>500</u> (B)  Prevalence Index = B/A = <u>5</u>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is > 50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Zea mays	100	<input checked="" type="checkbox"/>	100.0% UPL	
2. _____	0	<input type="checkbox"/>	0.0%	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
<b>= Total Cover</b>				
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

**Soil**

Sampling Point: 143-57-10-1

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	2/1					Silt Loam	

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Water Table Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe)    Yes     No     Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photo

**Remarks:**

Farmed Swale, recently planted.



Location 143-57-10-1: Pit 05-19-10



Location 143-57-10-1: Pedon 05-19-10



Location 143-57-10-1: View North 05-19-10



Location 143-57-10-1: View South 05-19-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 19-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-10-2  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 10 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.215063 **Long.:** -97.896917 **Datum:** NAD 83

**Soil Map Unit Name:** Barnes-Buse loams, 9 to 15 percent slopes **NWI classification:** PEMC

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Hydric Soil Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Wetland Hydrology Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants** Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>100</u> x 1 = <u>100</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> <b>Column Totals:</b> <u>100</u> (A) <u>100</u> (B)  Prevalence Index = B/A = <u>1</u>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is > 50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Typha angustifolia	40	<input checked="" type="checkbox"/>	40.0% OBL	
2. Polygonum amphibium	20	<input checked="" type="checkbox"/>	20.0% OBL	
3. Carex aquatilis	20	<input checked="" type="checkbox"/>	20.0% OBL	
4. Scirpus acutus	20	<input checked="" type="checkbox"/>	20.0% OBL	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: View North (Page 1), View South (Page 1)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

**Soil**

Sampling Point: 143-57-10-2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		

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

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

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

**(MLRA 72 and 73 of LRR H)**

**Restrictive Layer (if present):**  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

Remarks:  
 Soil profile not investigated. Listed as hydric by the NRCS.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

**Field Observations:**

Surface Water Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>8</u>	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
Water Table Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	

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

Remarks:  
 Isolated Wetland w/ USFWS Wetland Easement - possesses no discreet or confined surface or shallow subsurface connection to a tributary stream eventually flowing into a navigable water of the United States. Therefore, this wetland is not hydrologically connected to a water of the United States. It is however, under easement with the USFWS.

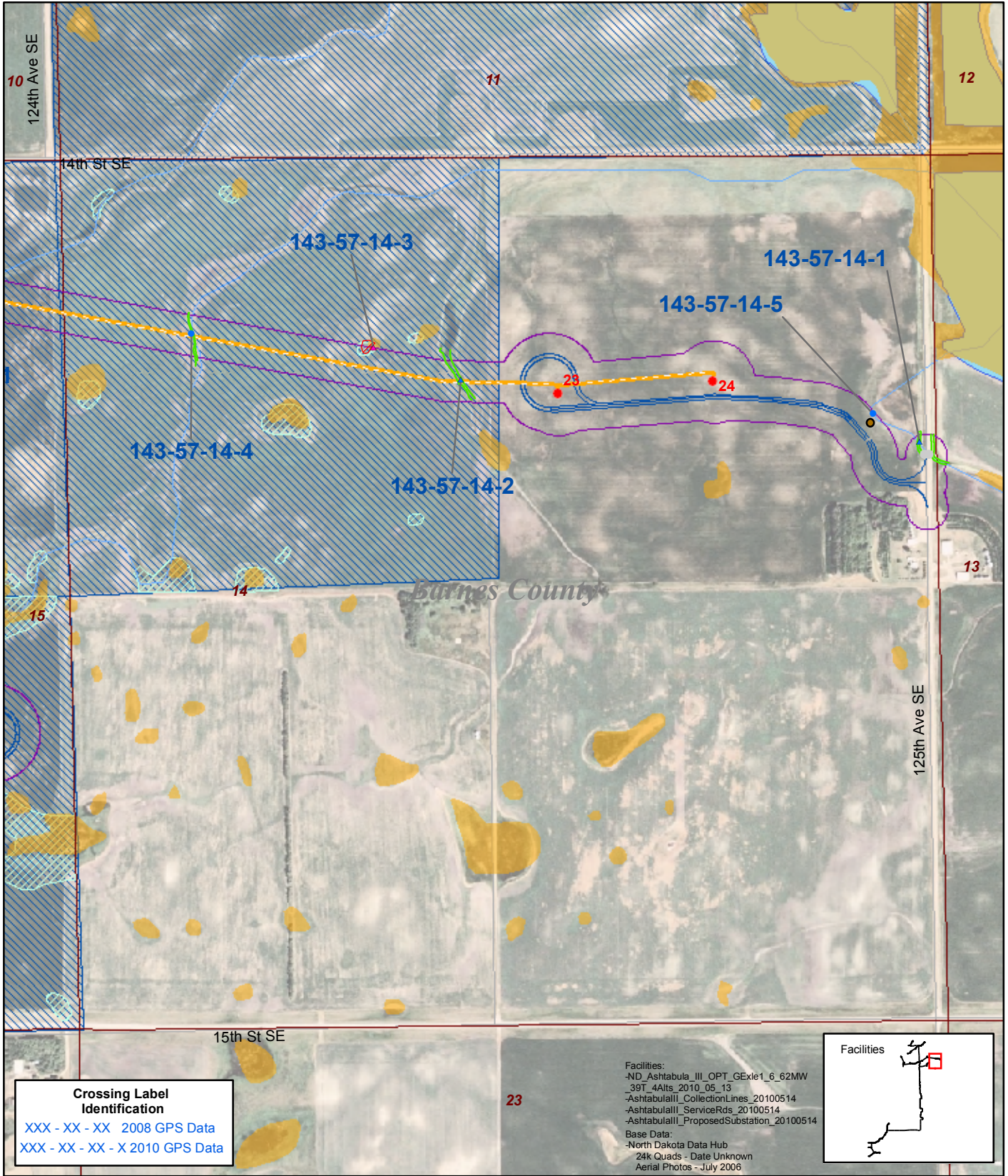


Location 143-57-10-2: View North 05-19-10



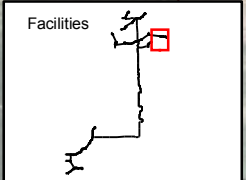
Location 143-57-10-2: View South 05-19-10

**TOWNSHIP 143N**  
**RANGE 57W**  
**SECTION 14**



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

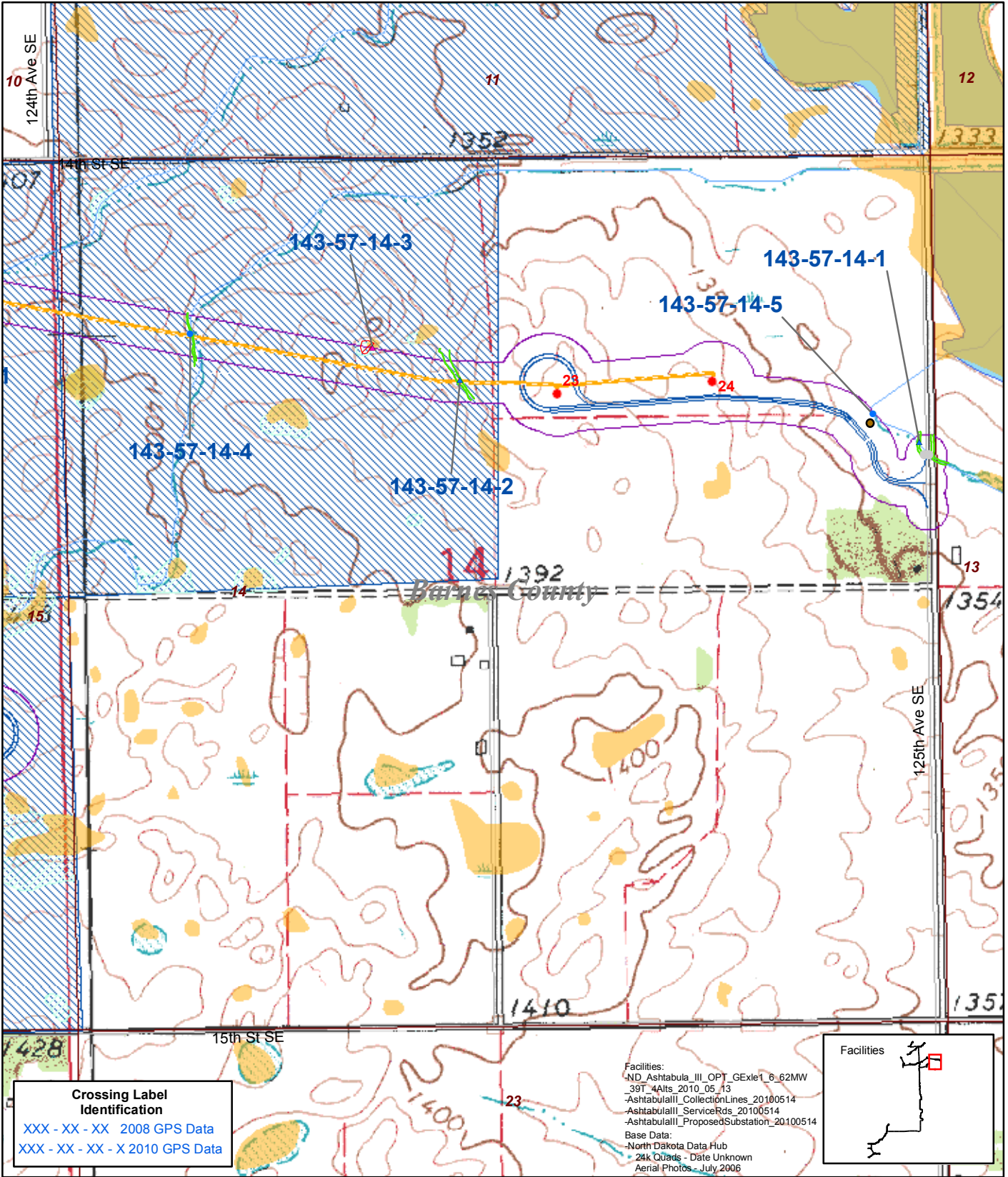
**Facilities:**  
 -ND\_AshTabula\_III\_OPT\_GExle1\_6\_62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
**Base Data:**  
 -North Dakota Data Hub  
 -24K Quads - Date Unknown  
 -Aerial Photos - July 2006



- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ■ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                         |
| ▲ USFWS Easement                      | — Collector              | □ Township                        |
| ~ Wetland                             | — Service Road           | □ County                          |
| ~ RPW Boundary                        | ■ Substation             | □ USFWS Wetland Easement          |
| ~ Wetland Boundary                    | ■ Area of Investigation  | □ USFWS Easement                  |
|                                       | ■ Lake/Pond              | ■ USFWS Waterfowl Production Area |

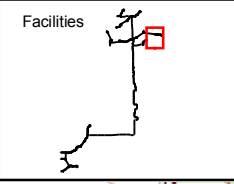
June 28, 2010  
 Ashtabula III  
 Wind Energy Center  
 Barnes County, North Dakota

**T143N  
 R57W  
 Section 14**



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

Facilities:  
 -ND\_AshTabula\_III\_OPT\_GE1x1\_6\_62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
 Base Data:  
 -North Dakota Data Hub  
 -24K Quads - Date Unknown  
 -Aerial Photos - July 2006



- Crossing Location
- ▲ Non-Jurisdictional Isolated Wetland
- ▲ USACE Jurisdictional
- ▲ USACE/USFWS Jurisdictional
- ▲ USFWS Easement
- Wetland
- RPW Boundary
- Wetland Boundary
- Culvert
- Non-Wetland Data Point
- Wetland Data Point
- Turbine
- Collector
- Service Road
- Substation
- Area of Investigation
- Lake/Pond
- River/Stream
- Road
- NWI Area
- Section
- Township
- County
- USFWS Wetland Easement
- USFWS Easement
- USFWS Waterfowl Production Area

June 28, 2010  
 Ashtabula III  
 Wind Energy Center  
 Barnes County, North Dakota  
**T143N  
 R57W  
 Section 14**

**SEE APPENDIX B  
FOR  
LOCATION 143-57-14-1  
JURISDICTIONAL  
DETERMINATION  
FORM**



Location 143-57-14-1: View North 05-19-10



Location 143-57-14-1: View South 05-19-10



Location 143-57-14-1: View North 05-19-10



Location 143-57-14-1: View South 05-19-10

**SEE APPENDIX B  
FOR  
LOCATION 143-57-14-2  
JURISDICTIONAL  
DETERMINATION  
FORM**



Location 143-57-14-2: View North 05-20-10



Location 143-57-14-2: View South 05-20-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 20-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-14-3  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 14 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.207987 **Long.:** -97.868228 **Datum:** NAD 83  
**Soil Map Unit Name:** Barnes-Buse loams, 6 to 9 percent slopes **NWI classification:** PEMA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation  , Soil  , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation  , Soil  , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>100</u> x 5 = <u>500</u> Column Totals: <u>100</u> (A) <u>500</u> (B)  Prevalence Index = B/A = <u>5</u>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
5. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is > 50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Glycine max	100	<input checked="" type="checkbox"/>	100.0% UPL	
2. _____	0	<input type="checkbox"/>	0.0%	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

**Soil**

Sampling Point: 143-57-14-3

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

Depth (inches)	Matrix		Redox Features				Silt Loam	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>			

<sup>1</sup>Type: C=Concentration D=Depletion RM=Reduced Matrix CS=Covered or Coated Sand Grains <sup>2</sup>Location: PL=Pore Lining M=Matrix

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

- 1 cm Muck (A9) (LRR I, J)
  - Coastal Prairie Redox (A16) (LRR F, G, H)
  - Dark Surface (S7) (LRR G)
  - High Plains Depressions (F16)
  - (LRR H outside of MLRA 72 and 73)
  - Re
  - Red Parent Material (TF2)
  - Very Shallow Dark Surface (TF12)
  -
- <sup>3</sup>Indi hydrology must be present, unless disturbed or problematic.

**Resistive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_  
 Remarks: \_\_\_\_\_

**Hydric Soil Present?** Yes  No

Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

**Secondary Indicators (minimum of two required)**

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

- 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 Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3)
- (where not tilled)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

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

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes  No  Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes  No

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

Aerial Photo \_\_\_\_\_

**Remarks:**

Farmed depressional feature in USFWS Easement. The area does not meet the definition of a wetland based on current USACE Guidance. It is however, under easement with the USFWS.



Location 143-57-14-3: Pit 05-20-10



Location 143-57-14-3: Pedon 05-20-10



Location 143-57-14-3: View North 05-20-10



Location 143-57-14-3: View South 05-20-10

**SEE APPENDIX B  
FOR  
LOCATION 143-57-14-4  
JURISDICTIONAL  
DETERMINATION  
FORM**



Location 143-57-14-4: View North 05-20-10



Location 143-57-14-4: View South 05-20-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 18-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-14-5  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 14 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Swale **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.206765 **Long.:** -97.856023 **Datum:** NAD 83

**Soil Map Unit Name:** Lamoure silt loam, channeled, 0 to 2 percent slopes **NWI classification:** N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/> <b>Hydric Soil Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Wetland Hydrology Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

**Dominant Species?** FWS Region:

Tree Stratum (Plot size: _____)	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
1. _____	0	<input type="checkbox"/>	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
			<b>= Total Cover</b>	
<b>Sapling/Shrub Stratum (Plot size: _____)</b>				
1. _____	0	<input type="checkbox"/>	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>40</u> x 4 = <u>160</u> UPL species <u>60</u> x 5 = <u>300</u> <b>Column Totals:</b> <u>100</u> (A) <u>460</u> (B)  Prevalence Index = B/A = <u>4.6</u>
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
			<b>= Total Cover</b>	
<b>Herb Stratum (Plot size: _____)</b>				
1. Taraxacum officinale	10	<input type="checkbox"/>	10.0% FACU	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is > 50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
2. Zea mays	20	<input checked="" type="checkbox"/>	20.0% UPL	
3. Bromus inermis	40	<input checked="" type="checkbox"/>	40.0% UPL	
4. Lolium perenne	30	<input checked="" type="checkbox"/>	30.0% FACU	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
			<b>= Total Cover</b>	
<b>Woody Vine Stratum (Plot size: _____)</b>				
1. _____	0	<input type="checkbox"/>	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
2. _____	0	<input type="checkbox"/>	_____	
			<b>= Total Cover</b>	
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

**Soil**

Sampling Point: 143-57-14-5

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	2/1					Silt Loam	

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes  No

Remarks:  
 Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes  No  Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes  No

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

Aerial Photo

Remarks:  
 Non-wetland vegetative swale.



Location 143-57-14-5: Pit 05-18-10



Location 143-57-14-5: Pedon 05-18-10

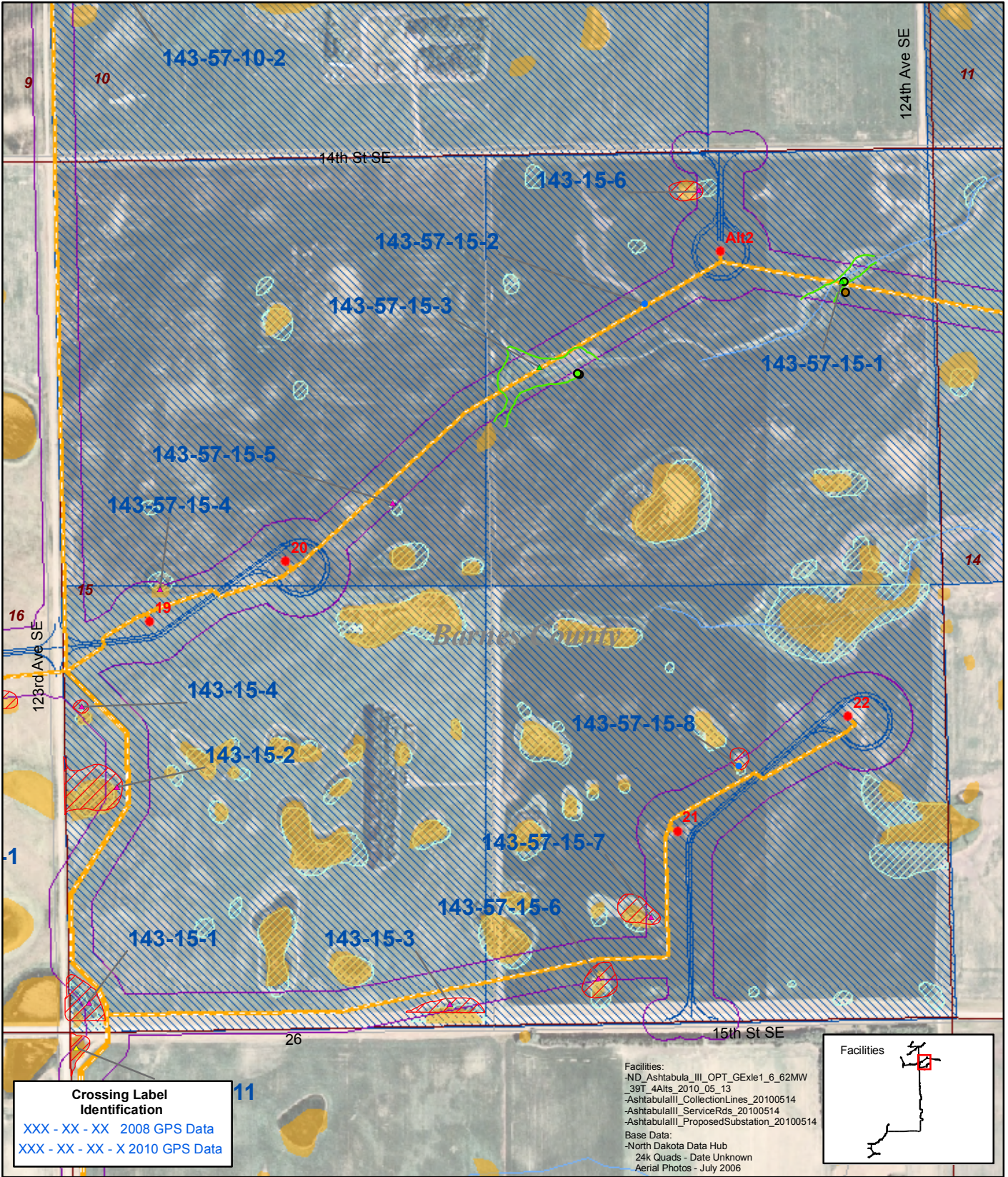


Location 143-57-14-5: View North 05-18-10



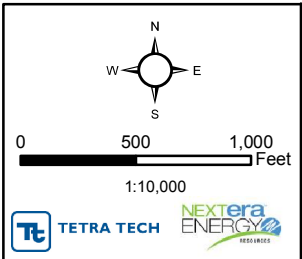
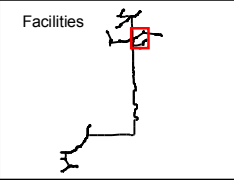
Location 143-57-14-5: View South 05-18-10

**TOWNSHIP 143N**  
**RANGE 57W**  
**SECTION 15**



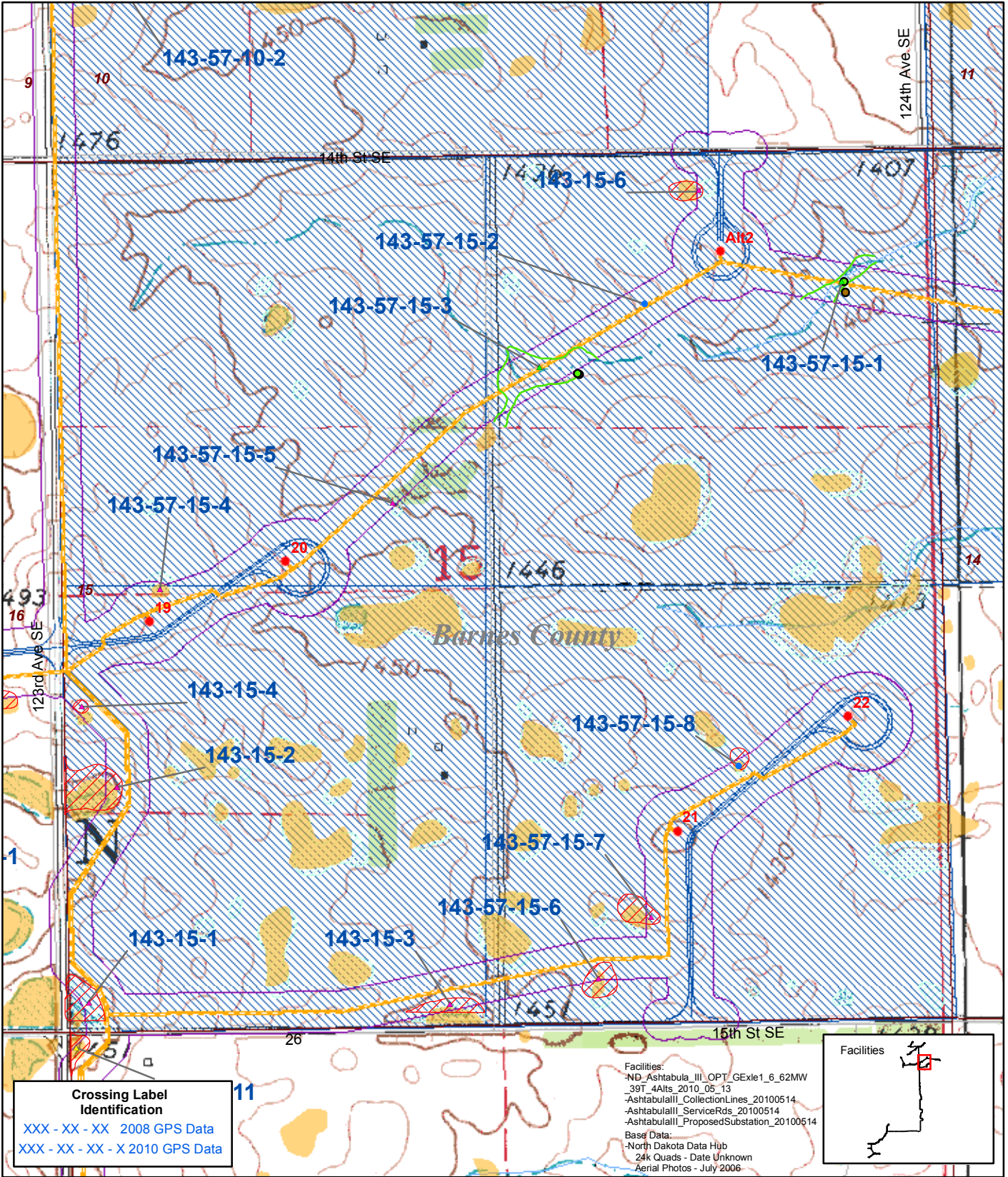
**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

**Facilities:**  
 -ND\_Ashitabula\_III\_OPT\_GExle1\_6\_62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
**Base Data:**  
 -North Dakota Data Hub  
 -24k Quads - Date Unknown  
 -Aerial Photos - July 2006



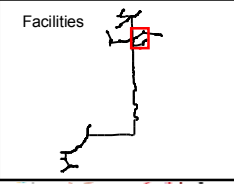
- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ○ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                         |
| ▲ USFWS Easement                      | — Collector              | □ Township                        |
| Wetland                               | — Service Road           | □ County                          |
| RPW Boundary                          | ■ Substation             | □ USFWS Wetland Easement          |
| Wetland Boundary                      | □ Area of Investigation  | □ USFWS Easement                  |
|                                       | ● Lake/Pond              | ■ USFWS Waterfowl Production Area |

June 28, 2010  
**Ashtabula III**  
**Wind Energy Center**  
 Barnes County, North Dakota  
**T143N**  
**R57W**  
**Section 15**



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

**Facilities:**  
 -ND\_AshTabula\_III\_OPT\_GE1x1\_6\_62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
**Base Data:**  
 -North Dakota Data Hub  
 24K Quads - Date Unknown  
 Aerial Photos - July 2006



**TETRA TECH** **NEXTERA ENERGY**

- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ○ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                         |
| ▲ USFWS Easement                      | ● Collector              | □ Township                        |
| Wetland                               | — Service Road           | □ County                          |
| RPW Boundary                          | ■ Substation             | □ USFWS Wetland Easement          |
| Wetland Boundary                      | □ Area of Investigation  | □ USFWS Easement                  |
|                                       | ● Lake/Pond              | ■ USFWS Waterfowl Production Area |

June 28, 2010  
**Ashtabula III**  
**Wind Energy Center**  
 Barnes County, North Dakota

**T143N**  
**R57W**  
**Section 15**

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 20-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-15-1 T1A  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 15 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.208983 **Long.:** -97.878108 **Datum:** NAD 83  
**Soil Map Unit Name:** Barnes-Buse loams, 3 to 6 percent slopes **NWI classification:** N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>80</u> x 1 = <u>80</u> FACW species <u>20</u> x 2 = <u>40</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> <b>Column Totals:</b> <u>100</u> (A) <u>120</u> (B)  Prevalence Index = B/A = <u>1.2</u>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
5. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is > 50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Carex aquatilis	20	<input checked="" type="checkbox"/>	20.0% OBL	
2. Typha angustifolia	60	<input checked="" type="checkbox"/>	60.0% OBL	
3. Phalaris arundinacea	20	<input checked="" type="checkbox"/>	20.0% FACW+	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

**Soil**

Sampling Point: 143-57-15-1 T1A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	2/1					Silt Loam	

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

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

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

(MLRA 72 and 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks:

Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes  No  Depth (inches): 16

Wetland Hydrology Present? Yes  No

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

Aerial Photo

Remarks:

Seasonal RPW w/ Adjacent Wetlands -The area was determined to be a seasonal RPW with adjacent wetlands. The adjacent wetlands exhibit positive indicators for dominant hydrophytic vegetation, positive indicators of hydric soils, and evidence of wetland hydrology. The area also possesses characteristic to classify it as relatively permanent water due to the presence of an incised channel, and defined bed and bank.



Location 143-57-15-1 T1 A: Pit 05-20-10



Location 143-57-15-1 T1 A: Pedon 05-20-10



Location 143-57-15-1 T1 A: View North 05-20-10



Location 143-57-15-1 T1 A: View South 05-20-10

## WETLAND DETERMINATION DATA FORM - Great Plains Region

**Project/Site:** Ashtabula 3 Wind Energy Center      **City/County:** Barnes      **Sampling Date:** 20-May-10  
**Applicant/Owner:** NextEra      **State:** ND      **Sampling Point:** 143-57-15-1 T1B  
**Investigator(s):** MRE/CAY      **Section, Township, Range:** S 15      T 143      R 57  
**Landform (hillslope, terrace, etc.):** Flat      **Local relief (concave, convex, none):** flat      **Slope:** 1.0% / 0.6 °  
**Subregion (LRR):** LRR F      **Lat.:** 47.208983      **Long.:** -97.878108      **Datum:** NAD 83  
**Soil Map Unit Name:** Barnes-Buse loams, 3 to 6 percent slopes      **NWI classification:** N/A

**Are climatic/hydrologic conditions on the site typical for this time of year?**      Yes  No       (If no, explain in Remarks.)  
**Are Vegetation**  , **Soil**  , **or Hydrology**  **significantly disturbed?**      **Are "Normal Circumstances" present?**      Yes  No   
**Are Vegetation**  , **Soil**  , **or Hydrology**  **naturally problematic?**      (If needed, explain any answers in Remarks.)

### Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/> <b>Hydric Soil Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Wetland Hydrology Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

### VEGETATION - Use scientific names of plants

**Dominant Species?**      FWS Region:

Stratum	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of:      Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>20</u> x 4 = <u>80</u> UPL species <u>80</u> x 5 = <u>400</u> <b>Column Totals:</b> <u>100</u> (A) <u>480</u> (B)  Prevalence Index = B/A = <u>4.8</u>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
5. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> <b>1 - Rapid Test for Hydrophytic Vegetation</b> <input type="checkbox"/> <b>2 - Dominance Test is &gt; 50%</b> <input type="checkbox"/> <b>3 - Prevalence Index is ≤ 3.0<sup>1</sup></b> <input type="checkbox"/> <b>4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</b> <input type="checkbox"/> <b>Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</b>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Glycine max	80	<input checked="" type="checkbox"/>	80.0%      UPL	
2. Taraxacum officinale	20	<input checked="" type="checkbox"/>	20.0%      FACU	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

**Soil**

Sampling Point: 143-57-15-1 T1B

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	2/1					Silt Loam	

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |
|--|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)                 |
| <input type="checkbox"/> Coastal Prairie Redox (A16) (LRR F, G, H) |
| <input type="checkbox"/> Dark Surface (S7) (LRR G)                 |
| <input type="checkbox"/> High Plains Depressions (F16)             |
| <b>(LRR H outside of MLRA 72 and 73)</b>                           |
| <input type="checkbox"/> Reduced Vertic (F18)                      |
| <input type="checkbox"/> Red Parent Material (TF2)                 |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12)          |
| <input type="checkbox"/> Other (Explain in Remarks)                |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Surface Soil Cracks (B6)                   |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)    |
| <input type="checkbox"/> Drainage Patterns (B10)                    |
| <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |
| <b>(where tilled)</b>   |
| <input type="checkbox"/> Crayfish Burrows (C8)                      |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  |
| <input type="checkbox"/> Geomorphic Position (D2)                   |
| <input type="checkbox"/> FAC-neutral Test (D5)                      |
| <input type="checkbox"/> Frost Heave Hummocks (D7) (LRR F)          |

**Field Observations:**

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

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photo

**Remarks:**

Upland Data Point. Nothing Evident, Farmed Through = Site shows no evident signs of a typical hydrophytic vegetative community, and is presently or has recently been farmed.



Location 143-57-15-1 T1 B: Pit 05-20-10



Location 143-57-15-1 T1 B: Pedon 05-20-10



Location 143-57-15-1 u " : View North 05-20-10



Location 143-57-15-1 T1 B: View South 05-20-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 20-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-15-2  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 15 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Swale **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.208661 **Long.:** -97.882927 **Datum:** NAD 83

**Soil Map Unit Name:** Barnes-Buse loams, 6 to 9 percent slopes **NWI classification:** N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation  , Soil  , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation  , Soil  , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>100</u> x 5 = <u>500</u> Column Totals: <u>100</u> (A) <u>500</u> (B)  Prevalence Index = B/A = <u>5</u>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is > 50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Glycine max	100	<input checked="" type="checkbox"/>	100.0% UPL	
2. _____	0	<input type="checkbox"/>	0.0%	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: View North (Page 1), View South (Page 1)

**Soil**

Sampling Point: 143-57-15-2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |
|--|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)                 |
| <input type="checkbox"/> Coastal Prairie Redox (A16) (LRR F, G, H) |
| <input type="checkbox"/> Dark Surface (S7) (LRR G)                 |
| <input type="checkbox"/> High Plains Depressions (F16)             |
| <b>(LRR H outside of MLRA 72 and 73)</b>                           |
| <input type="checkbox"/> Reduced Vertic (F18)                      |
| <input type="checkbox"/> Red Parent Material (TF2)                 |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12)          |
| <input type="checkbox"/> Other (Explain in Remarks)                |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes  No

**Remarks:**

Soil profile not investigated. Listed as hydric by the NRCS.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Surface Soil Cracks (B6)                   |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)    |
| <input checked="" type="checkbox"/> Drainage Patterns (B10)         |
| <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |
| <b>(where tilled)</b>   |
| <input type="checkbox"/> Crayfish Burrows (C8)                      |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  |
| <input type="checkbox"/> Geomorphic Position (D2)                   |
| <input type="checkbox"/> FAC-neutral Test (D5)                      |
| <input type="checkbox"/> Frost Heave Hummocks (D7) (LRR F)          |

**Field Observations:**

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

**Wetland Hydrology Present?** Yes  No

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

Aerial Photo

**Remarks:**

Farmed Swale.



Location 143-57-15-2: View North 05-20-10



Location 143-57-15-2: View South 05-20-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 20-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-15-3 T1A  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 15 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.207637 **Long.:** -97.885527 **Datum:** NAD 83  
**Soil Map Unit Name:** Barnes-Buse loams, 3 to 6 percent slopes **NWI classification:** N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>30</u> x 2 = <u>60</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> <b>Column Totals:</b> <u>30</u> (A) <u>60</u> (B)  Prevalence Index = B/A = <u>2</u>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
5. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is > 50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Phalaris arundinacea	30	<input checked="" type="checkbox"/>	100.0% FACW+	
2. _____	0	<input type="checkbox"/>	0.0%	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	30	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>70</u>				

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

**Soil**

Sampling Point: 143-57-15-3 T1A

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	2/1					Silt Loam	

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes  No

**Remarks:**

Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

**Secondary Indicators (minimum of two required)**

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

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes  No  Depth (inches): 16

**Wetland Hydrology Present?** Yes  No

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

Aerial Photo

**Remarks:**

Wetland w/ USFWS Wetland Easement- possesses a discreet or confined surface or shallow subsurface connection to a tributary stream eventually flowing into a navigable water of the United States. Therefore, the wetland is hydrologically connected to a water of the United States.



Location 143-57-15-3 T1 A: Pit 05-20-10



Location 143-57-15-3 T1 A: Pedon 05-20-10



Location 143-57-15-3 T1 A: View North 05-20-10



Location 143-57-15-3 T1 A: View South 05-20-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 20-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-15-3 T1B  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 15 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Sideslope **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.207637 **Long.:** -97.885527 **Datum:** NAD 83

**Soil Map Unit Name:** Barnes-Buse loams, 3 to 6 percent slopes **NWI classification:** N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants** Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>30</u> x 5 = <u>150</u> Column Totals: <u>30</u> (A) <u>150</u> (B)  Prevalence Index = B/A = <u>5</u>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is > 50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Glycine max	70	<input checked="" type="checkbox"/>	70.0%	
2. Triticum x aestivum	30	<input checked="" type="checkbox"/>	30.0% UPL	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

**Soil**

Sampling Point: 143-57-15-3 T1B

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	2/1					Silt Loam	

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

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

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

(MLRA 72 and 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Water Table Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe)    Yes     No     Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photo

**Remarks:**

Upland Data Point. Nothing Evident, Farmed Through = Site shows no evident signs of a typical hydrophytic vegetative community, and is presently or has recently been farmed.



Location 143-57-15-3 T1 B: Pit 05-20-10



Location 143-57-15-3 T1 B: Pedon 05-20-10



Location 143-57-15-3 T1 B: View North 05-20-10



Location 143-57-15-3 T1 B: View South 05-20-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 20-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-15-4  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 15 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.204020 **Long.:** -97.894878 **Datum:** NAD 83  
**Soil Map Unit Name:** Barnes-Buse loams, 3 to 6 percent slopes **NWI classification:** PEMC

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation  , Soil  , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation  , Soil  , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>100</u> x 5 = <u>500</u> Column Totals: <u>100</u> (A) <u>500</u> (B)  Prevalence Index = B/A = <u>5</u>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
5. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is > 50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input checked="" type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Glycine max	100	<input checked="" type="checkbox"/>	100.0% UPL	
2. _____	0	<input type="checkbox"/>	0.0%	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by non-hydrophytes. However, if allowed to revert to a natural state, hydrophytic vegetation would dominate.  
 Photos: View North (Page 1), View South (Page 1)





Location 143-57-15-4: View North 05-20-10



Location 143-57-15-4: View South 05-20-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 20-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-15-5  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 15 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Knob **Local relief (concave, convex, none):** convex **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.205257 **Long.:** -97.890104 **Datum:** NAD 83

**Soil Map Unit Name:** Barnes-Buse loams, 3 to 6 percent slopes **NWI classification:** N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Tree Stratum (Plot size: _____)	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
1. _____	0	<input type="checkbox"/>	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>100</u> x 5 = <u>500</u> <b>Column Totals:</b> <u>100</u> (A) <u>500</u> (B)  Prevalence Index = B/A = <u>5</u>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is > 50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input checked="" type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Glycine max	100	<input checked="" type="checkbox"/>	100.0% UPL	
2. _____	0	<input type="checkbox"/>	0.0%	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
<b>= Total Cover</b>				
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: View North (Page 1), View South (Page 1)





Location 143-57-15-5: View North 05-20-10



Location 143-57-15-5: View South 05-20-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center      **City/County:** Barnes      **Sampling Date:** 18-May-10  
**Applicant/Owner:** NextEra      **State:** ND      **Sampling Point:** 143-57-15-6  
**Investigator(s):** MRE/CAY      **Section, Township, Range:** S 15      T 143      R 57  
**Landform (hillslope, terrace, etc.):** Pothole      **Local relief (concave, convex, none):** concave      **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F      **Lat.:** 47.197425      **Long.:** -97.884295      **Datum:** NAD 83  
**Soil Map Unit Name:** Barnes-Buse loams, 3 to 6 percent slopes      **NWI classification:** PEMA

**Are climatic/hydrologic conditions on the site typical for this time of year?**      Yes  No  (If no, explain in Remarks.)  
**Are Vegetation**  , **Soil**  , **or Hydrology**  **significantly disturbed?**      **Are "Normal Circumstances" present?**      Yes  No   
**Are Vegetation**  , **Soil**  , **or Hydrology**  **naturally problematic?**      (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Hydric Soil Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Wetland Hydrology Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

**Dominant Species?**      FWS Region:

Stratum	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>2</u> (A)
1. _____	0	<input type="checkbox"/>	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
2. _____	0	<input type="checkbox"/>	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b>
1. _____	0	<input type="checkbox"/>	_____	Total % Cover of:      Multiply by:
2. _____	0	<input type="checkbox"/>	_____	OBL species <u>100</u> x 1 = <u>100</u>
3. _____	0	<input type="checkbox"/>	_____	FACW species <u>0</u> x 2 = <u>0</u>
4. _____	0	<input type="checkbox"/>	_____	FAC species <u>0</u> x 3 = <u>0</u>
5. _____	0	<input type="checkbox"/>	_____	FACU species <u>0</u> x 4 = <u>0</u>
	0	<b>= Total Cover</b>		UPL species <u>0</u> x 5 = <u>0</u>
<b>Herb Stratum</b> (Plot size: _____)				<b>Column Totals:</b> <u>100</u> (A) <u>100</u> (B)
1. Polygonum amphibium	60	<input checked="" type="checkbox"/>	60.0% OBL	Prevalence Index = B/A = <u>1</u>
2. Carex aquatilis	30	<input checked="" type="checkbox"/>	30.0% OBL	
3. Typha angustifolia	10	<input type="checkbox"/>	10.0% OBL	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is > 50%

3 - Prevalence Index is ≤ 3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.

**Hydrophytic Vegetation Present?**      Yes  No

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: View North (Page 1), View South (Page 1)





Location 143-57-15-6: View North 05-18-10



Location 143-57-15-6: View South 05-18-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 18-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-15-7  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 15 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 3.0% / 1.7 °  
**Subregion (LRR):** LRR F **Lat.:** 47.198441 **Long.:** -97.882985 **Datum:** NAD 83

**Soil Map Unit Name:** Hamerly-Tonka complex 0 to 3 percent slopes **NWI classification:** PEMA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Hydric Soil Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Wetland Hydrology Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

**Dominant Species?** FWS Region:

Stratum	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>80</u> x 1 = <u>80</u> FACW species <u>20</u> x 2 = <u>40</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> <b>Column Totals:</b> <u>100</u> (A) <u>120</u> (B)  Prevalence Index = B/A = <u>1.2</u>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
5. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is > 50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Typha angustifolia	20	<input checked="" type="checkbox"/>	20.0% OBL	
2. Polygonum amphibium	60	<input checked="" type="checkbox"/>	60.0% OBL	
3. Phalaris arundinacea	20	<input checked="" type="checkbox"/>	20.0% FACW+	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: View North (Page 1), View South (Page 1)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.





Location 143-57-15-7: View North 05-18-10



Location 143-57-15-7: View South 05-18-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 18-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-15-8  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 15 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.200944 **Long.:** -97.880787 **Datum:** NAD 83  
**Soil Map Unit Name:** Barnes-Buse loams, 3 to 6 percent slopes **NWI classification:** PEMA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants** Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>1</u> (A)
1. _____	0	<input type="checkbox"/>	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
2. _____	0	<input type="checkbox"/>	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b>
1. _____	0	<input type="checkbox"/>	_____	Total % Cover of: _____ Multiply by: _____
2. _____	0	<input type="checkbox"/>	_____	OBL species <u>50</u> x 1 = <u>50</u>
3. _____	0	<input type="checkbox"/>	_____	FACW species <u>0</u> x 2 = <u>0</u>
4. _____	0	<input type="checkbox"/>	_____	FAC species <u>0</u> x 3 = <u>0</u>
5. _____	0	<input type="checkbox"/>	_____	FACU species <u>0</u> x 4 = <u>0</u>
	0	<b>= Total Cover</b>		UPL species <u>50</u> x 5 = <u>250</u>
<b>Herb Stratum</b> (Plot size: _____)				<b>Column Totals:</b> <u>100</u> (A) <u>300</u> (B)
1. Triticum x aestivum	50	<input checked="" type="checkbox"/>	50.0% UPL	Prevalence Index = B/A = <u>3</u>
2. Polygonum amphibium	40	<input checked="" type="checkbox"/>	40.0% OBL	
3. Typha angustifolia	10	<input type="checkbox"/>	10.0% OBL	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b>
1. _____	0	<input type="checkbox"/>	_____	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. _____	0	<input type="checkbox"/>	_____	<input type="checkbox"/> 2 - Dominance Test is > 50%
	0	<b>= Total Cover</b>		<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
				<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>

**Remarks:**  
 Vegetation exhibits a prevalence of hydrophytes.  
 Photos: View North (Page 1), View South (Page 1)



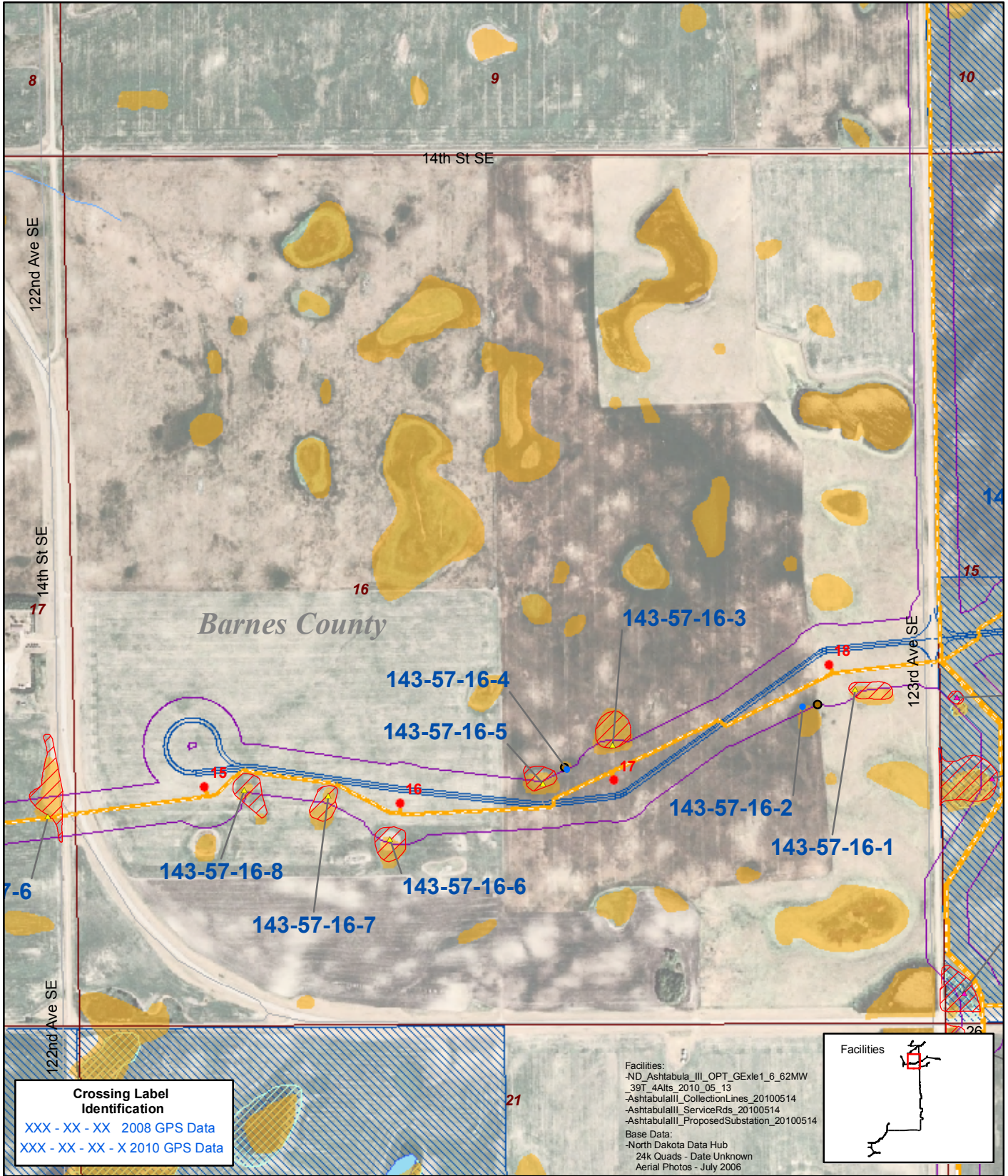


Location 143-57-15-8: View North 05-18-10



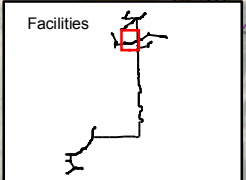
Location 143-57-15-8: View South 05-18-10

**TOWNSHIP 143N**  
**RANGE 57W**  
**SECTION 16**



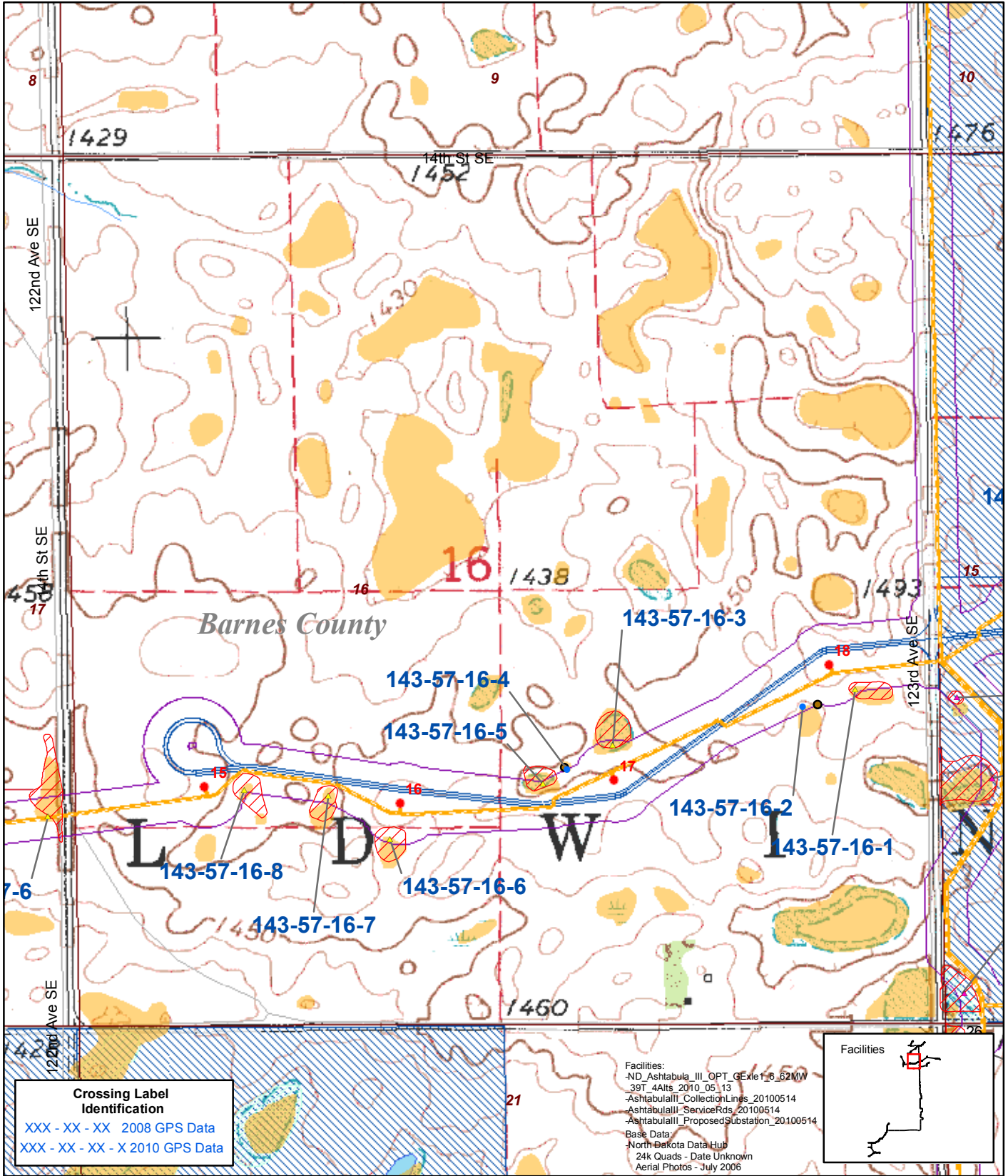
**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

**Facilities:**  
 -ND\_Ashabula\_III\_OPT\_GExle1\_6\_62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
**Base Data:**  
 -North Dakota Data Hub  
 24k Quads - Date Unknown  
 Aerial Photos - July 2006



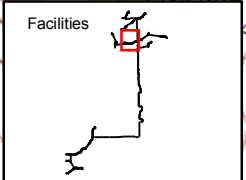
- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ○ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                         |
| ▲ USFWS Easement                      | — Collector              | □ Township                        |
| Wetland                               | — Service Road           | □ County                          |
| RPW Boundary                          | □ Substation             | □ USFWS Wetland Easement          |
| Wetland Boundary                      | □ Area of Investigation  | □ USFWS Easement                  |
|                                       | □ Lake/Pond              | □ USFWS Waterfowl Production Area |

June 28, 2010  
 Ashtabula III  
 Wind Energy Center  
 Barnes County, North Dakota  
**T143N  
 R57W  
 Section 16**



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

Facilities:  
 -ND\_Ashstabula\_III\_OPT\_GExler\_6\_62MW  
 -39T\_4AIts\_2010\_05\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
 Base Data:  
 -North Dakota Data Hub  
 24K Quads - Date Unknown  
 Aerial Photos - July 2006



- Crossing Location
- ▲ Non-Jurisdictional Isolated Wetland
- ▲ USACE Jurisdictional
- ▲ USACE/USFWS Jurisdictional
- ▲ USFWS Easement
- Wetland
- RPW Boundary
- Wetland Boundary
- Culvert
- Non-Wetland Data Point
- Wetland Data Point
- Turbine
- Collector
- Service Road
- Substation
- Area of Investigation
- Lake/Pond
- ~ River/Stream
- Road
- NWI Area
- Section
- Township
- County
- USFWS Wetland Easement
- USFWS Easement
- USFWS Waterfowl Production Area

June 28, 2010  
 Ashtabula III  
 Wind Energy Center  
 Barnes County, North Dakota

**T143N  
 R57W  
 Section 16**

## WETLAND DETERMINATION DATA FORM - Great Plains Region

**Project/Site:** Ashtabula 3 Wind Energy Center      **City/County:** Barnes      **Sampling Date:** 20-May-10  
**Applicant/Owner:** NextEra      **State:** ND      **Sampling Point:** 143-57-16-1  
**Investigator(s):** MRE/CAY      **Section, Township, Range:** S 16      T 143      R 57  
**Landform (hillslope, terrace, etc.):** Pothole      **Local relief (concave, convex, none):** concave      **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F      **Lat.:** 47.202249      **Long.:** -97.899314      **Datum:** NAD 83  
**Soil Map Unit Name:** Barnes-Buse loams, 6 to 9 percent slopes      **NWI classification:** PEMC

**Are climatic/hydrologic conditions on the site typical for this time of year?**      Yes  No       (If no, explain in Remarks.)  
**Are Vegetation**  , **Soil**  , **or Hydrology**  **significantly disturbed?**      **Are "Normal Circumstances" present?**      Yes  No   
**Are Vegetation**  , **Soil**  , **or Hydrology**  **naturally problematic?**      (If needed, explain any answers in Remarks.)

### Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Hydric Soil Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Wetland Hydrology Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

### VEGETATION - Use scientific names of plants Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A)
1. _____	0	<input type="checkbox"/>	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
2. _____	0	<input type="checkbox"/>	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b>
1. _____	0	<input type="checkbox"/>	_____	Total % Cover of:      Multiply by:
2. _____	0	<input type="checkbox"/>	_____	<b>OBL species</b> <u>70</u> x 1 = <u>70</u>
3. _____	0	<input type="checkbox"/>	_____	<b>FACW species</b> <u>30</u> x 2 = <u>60</u>
4. _____	0	<input type="checkbox"/>	_____	<b>FAC species</b> <u>0</u> x 3 = <u>0</u>
5. _____	0	<input type="checkbox"/>	_____	<b>FACU species</b> <u>0</u> x 4 = <u>0</u>
	0	<b>= Total Cover</b>		<b>UPL species</b> <u>0</u> x 5 = <u>0</u>
<b>Herb Stratum</b> (Plot size: _____)				<b>Column Totals:</b> <u>100</u> (A) <u>130</u> (B)
1. Phalaris arundinacea	30	<input checked="" type="checkbox"/>	30.0% FACW+	Prevalence Index = B/A = <u>1.3</u>
2. Scirpus acutus	50	<input checked="" type="checkbox"/>	50.0% OBL	
3. Carex aquatilis	20	<input checked="" type="checkbox"/>	20.0% OBL	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Hydrophytic Vegetation Indicators:**  
 1 - Rapid Test for Hydrophytic Vegetation  
 2 - Dominance Test is > 50%  
 3 - Prevalence Index is ≤ 3.0<sup>1</sup>  
 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.

**Hydrophytic Vegetation Present?**      Yes  No

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: View North (Page 1), View South (Page 1)





Location 143-57-16-1: View North 05-20-10



Location 143-57-16-1: View South 05-20-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 20-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-16-2  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 16 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Kettle **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.201966 **Long.:** -97.900604 **Datum:** NAD 83

**Soil Map Unit Name:** Barnes-Buse loams, 6 to 9 percent slopes **NWI classification:** PEMA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation  , Soil  , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation  , Soil  , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Tree Stratum (Plot size: _____)	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
1. _____	0	<input type="checkbox"/>	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>100</u> x 5 = <u>500</u> <b>Column Totals:</b> <u>100</u> (A) <u>500</u> (B)  Prevalence Index = B/A = <u>5</u>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is > 50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Zea mays	100	<input checked="" type="checkbox"/>	100.0% UPL	
2. _____	0	<input type="checkbox"/>	0.0%	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
<b>= Total Cover</b>				
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

**Soil**

Sampling Point: 143-57-16-2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	2/1					Silt Loam	

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

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

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

(MLRA 72 and 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Water Table Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe)    Yes     No     Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photo

**Remarks:**

Nothing Evident, Farmed Through - Site shows no evident signs of a typical hydrophytic vegetative community, and is presently or has recently been farmed.



Location 143-57-16-2: Pit 05-20-10



Location 143-57-16-2: Pedon 05-20-10



Location 143-57-16-2: View North 05-20-10



Location 143-57-16-2: View South 05-20-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 20-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-16-3  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 16 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.201369 **Long.:** -97.905266 **Datum:** NAD 83

**Soil Map Unit Name:** Barnes-Buse loams, 3 to 6 percent slopes **NWI classification:** PEMA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Hydric Soil Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Wetland Hydrology Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

**Dominant Species?** FWS Region:

Stratum	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A)
1. _____	0	<input type="checkbox"/>	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
2. _____	0	<input type="checkbox"/>	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b>
1. _____	0	<input type="checkbox"/>	_____	Total % Cover of: Multiply by:
2. _____	0	<input type="checkbox"/>	_____	OBL species <u>100</u> x 1 = <u>100</u>
3. _____	0	<input type="checkbox"/>	_____	FACW species <u>0</u> x 2 = <u>0</u>
4. _____	0	<input type="checkbox"/>	_____	FAC species <u>0</u> x 3 = <u>0</u>
5. _____	0	<input type="checkbox"/>	_____	FACU species <u>0</u> x 4 = <u>0</u>
	0	<b>= Total Cover</b>		UPL species <u>0</u> x 5 = <u>0</u>
<b>Herb Stratum</b> (Plot size: _____)				<b>Column Totals:</b> <u>100</u> (A) <u>100</u> (B)
1. Typha angustifolia	40	<input checked="" type="checkbox"/>	40.0% OBL	Prevalence Index = B/A = <u>1</u>
2. Polygonum amphibium	40	<input checked="" type="checkbox"/>	40.0% OBL	
3. Scirpus acutus	20	<input checked="" type="checkbox"/>	20.0% OBL	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b>
1. _____	0	<input type="checkbox"/>	_____	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. _____	0	<input type="checkbox"/>	_____	<input checked="" type="checkbox"/> 2 - Dominance Test is > 50%
	0	<b>= Total Cover</b>		<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
				<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: View North (Page 1), View South (Page 1)





Location 143-57-16-3: View North 05-20-10



Location 143-57-16-3: View South 05-20-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 20-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-16-4  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 16 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Kettle **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.200973 **Long.:** -97.906402 **Datum:** NAD 83  
**Soil Map Unit Name:** Barnes-Buse loams, 3 to 6 percent slopes **NWI classification:** PEMA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Tree Stratum (Plot size: _____)	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
1. _____	0	<input type="checkbox"/>	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>100</u> x 5 = <u>500</u> <b>Column Totals:</b> <u>100</u> (A) <u>500</u> (B)  Prevalence Index = B/A = <u>5</u>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is > 50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Zea mays	100	<input checked="" type="checkbox"/>	100.0% UPL	
2. _____	0	<input type="checkbox"/>	0.0%	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
<b>= Total Cover</b>				
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
<b>= Total Cover</b>				
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

**Soil**

Sampling Point: 143-57-16-4

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	2/1					Silt Loam	

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Water Table Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe)    Yes     No     Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photo

**Remarks:**

Nothing Evident, Farmed Through - Site shows no evident signs of a typical hydrophytic vegetative community, and is presently or has recently been farmed.



Location 143-57-16-4: Pit 05-20-10



Location 143-57-16-4: Pedon 05-20-10



Location 143-57-16-4: View North 05-20-10



Location 143-57-16-4: View South 05-20-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 20-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-16-5  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 16 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.200744 **Long.:** -97.906998 **Datum:** NAD 83

**Soil Map Unit Name:** Barnes-Buse loams, 3 to 6 percent slopes **NWI classification:** PEMA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Hydric Soil Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Wetland Hydrology Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

**Dominant Species?** FWS Region:

Stratum	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>10</u> x 1 = <u>10</u> FACW species <u>40</u> x 2 = <u>80</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> <b>Column Totals:</b> <u>50</u> (A) <u>90</u> (B)  Prevalence Index = B/A = <u>1.8</u>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
5. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is > 50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Phalaris arundinacea	40	<input checked="" type="checkbox"/>	80.0% FACW+	
2. Typha angustifolia	10	<input checked="" type="checkbox"/>	20.0% OBL	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	50	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>50</u>				

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: View North (Page 1), View South (Page 1)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.





Location 143-57-16-5: View North 05-20-10



Location 143-57-16-5: View South 05-20-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center      **City/County:** Barnes      **Sampling Date:** 20-May-10  
**Applicant/Owner:** NextEra      **State:** ND      **Sampling Point:** 143-57-16-6  
**Investigator(s):** MRE/CAY      **Section, Township, Range:** S 16      T 143      R 57  
**Landform (hillslope, terrace, etc.):** Pothole      **Local relief (concave, convex, none):** concave      **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F      **Lat.:** 47.199847      **Long.:** -97.910754      **Datum:** NAD 83  
**Soil Map Unit Name:** Barnes-Buse loams, 3 to 6 percent slopes      **NWI classification:** PEMA

**Are climatic/hydrologic conditions on the site typical for this time of year?**      Yes  No  (If no, explain in Remarks.)  
**Are Vegetation**  , **Soil**  , **or Hydrology**  **significantly disturbed?**      **Are "Normal Circumstances" present?**      Yes  No   
**Are Vegetation**  , **Soil**  , **or Hydrology**  **naturally problematic?**      (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Hydric Soil Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Wetland Hydrology Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

**Dominant Species?**      FWS Region:

Stratum	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of:      Multiply by: OBL species <u>80</u> x 1 = <u>80</u> FACW species <u>20</u> x 2 = <u>40</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> <b>Column Totals:</b> <u>100</u> (A) <u>120</u> (B)  Prevalence Index = B/A = <u>1.2</u>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> <b>1 - Rapid Test for Hydrophytic Vegetation</b> <input checked="" type="checkbox"/> <b>2 - Dominance Test is &gt; 50%</b> <input checked="" type="checkbox"/> <b>3 - Prevalence Index is ≤ 3.0<sup>1</sup></b> <input type="checkbox"/> <b>4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</b> <input type="checkbox"/> <b>Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</b>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Phalaris arundinacea	20	<input checked="" type="checkbox"/>	20.0%      FACW+	
2. Carex aquatilis	20	<input checked="" type="checkbox"/>	20.0%      OBL	
3. Scirpus acutus	30	<input checked="" type="checkbox"/>	30.0%      OBL	
4. Polygonum amphibium	30	<input checked="" type="checkbox"/>	30.0%      OBL	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: View North (Page 1), View South (Page 1)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.





Location 143-57-16-6: View North 05-20-10



Location 143-57-16-6: View South 05-20-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 20-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-16-7  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 16 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.200597 **Long.:** -97.912248 **Datum:** NAD 83  
**Soil Map Unit Name:** Barnes-Buse loams, 3 to 6 percent slopes **NWI classification:** PEMA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants** Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>1</u> (A)
1. _____	0	<input type="checkbox"/>		Total Number of Dominant Species Across All Strata: <u>1</u> (B)
2. _____	0	<input type="checkbox"/>		Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b>
1. _____	0	<input type="checkbox"/>		Total % Cover of: Multiply by:
2. _____	0	<input type="checkbox"/>		OBL species <u>90</u> x 1 = <u>90</u>
3. _____	0	<input type="checkbox"/>		FACW species <u>10</u> x 2 = <u>20</u>
4. _____	0	<input type="checkbox"/>		FAC species <u>0</u> x 3 = <u>0</u>
5. _____	0	<input type="checkbox"/>		FACU species <u>0</u> x 4 = <u>0</u>
	0	<b>= Total Cover</b>		UPL species <u>0</u> x 5 = <u>0</u>
<b>Herb Stratum</b> (Plot size: _____)				<b>Column Totals:</b> <u>100</u> (A) <u>110</u> (B)
1. Phalaris arundinacea	10	<input type="checkbox"/>	10.0% FACW+	Prevalence Index = B/A = <u>1.1</u>
2. Typha angustifolia	90	<input checked="" type="checkbox"/>	90.0% OBL	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation  
 2 - Dominance Test is > 50%  
 3 - Prevalence Index is ≤ 3.0<sup>1</sup>  
 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes  No

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: View North (Page 1), View South (Page 1)





Location 143-57-16-7: View North 05-20-10



Location 143-57-16-7: View South 05-20-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 20-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-16-8  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 16 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.200715 **Long.:** -97.914308 **Datum:** NAD 83

**Soil Map Unit Name:** Barnes-Buse loams, 3 to 6 percent slopes **NWI classification:** PEMA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Hydric Soil Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Wetland Hydrology Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

**Dominant Species?** FWS Region:

Stratum	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>2</u> (A)
1. _____	0	<input type="checkbox"/>	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
2. _____	0	<input type="checkbox"/>	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b>
1. _____	0	<input type="checkbox"/>	_____	Total % Cover of: _____ Multiply by: _____
2. _____	0	<input type="checkbox"/>	_____	OBL species <u>85</u> x 1 = <u>85</u>
3. _____	0	<input type="checkbox"/>	_____	FACW species <u>15</u> x 2 = <u>30</u>
4. _____	0	<input type="checkbox"/>	_____	FAC species <u>0</u> x 3 = <u>0</u>
5. _____	0	<input type="checkbox"/>	_____	FACU species <u>0</u> x 4 = <u>0</u>
	0	<b>= Total Cover</b>		UPL species <u>0</u> x 5 = <u>0</u>
<b>Herb Stratum</b> (Plot size: _____)				<b>Column Totals:</b> <u>100</u> (A) <u>115</u> (B)
1. Typha angustifolia	60	<input checked="" type="checkbox"/>	60.0% OBL	Prevalence Index = B/A = <u>1.15</u>
2. Phalaris arundinacea	15	<input type="checkbox"/>	15.0% FACW+	
3. Polygonum amphibium	25	<input checked="" type="checkbox"/>	25.0% OBL	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b>
1. _____	0	<input type="checkbox"/>	_____	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. _____	0	<input type="checkbox"/>	_____	<input checked="" type="checkbox"/> 2 - Dominance Test is > 50%
	0	<b>= Total Cover</b>		<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
				<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: View North (Page 1), View South (Page 1)



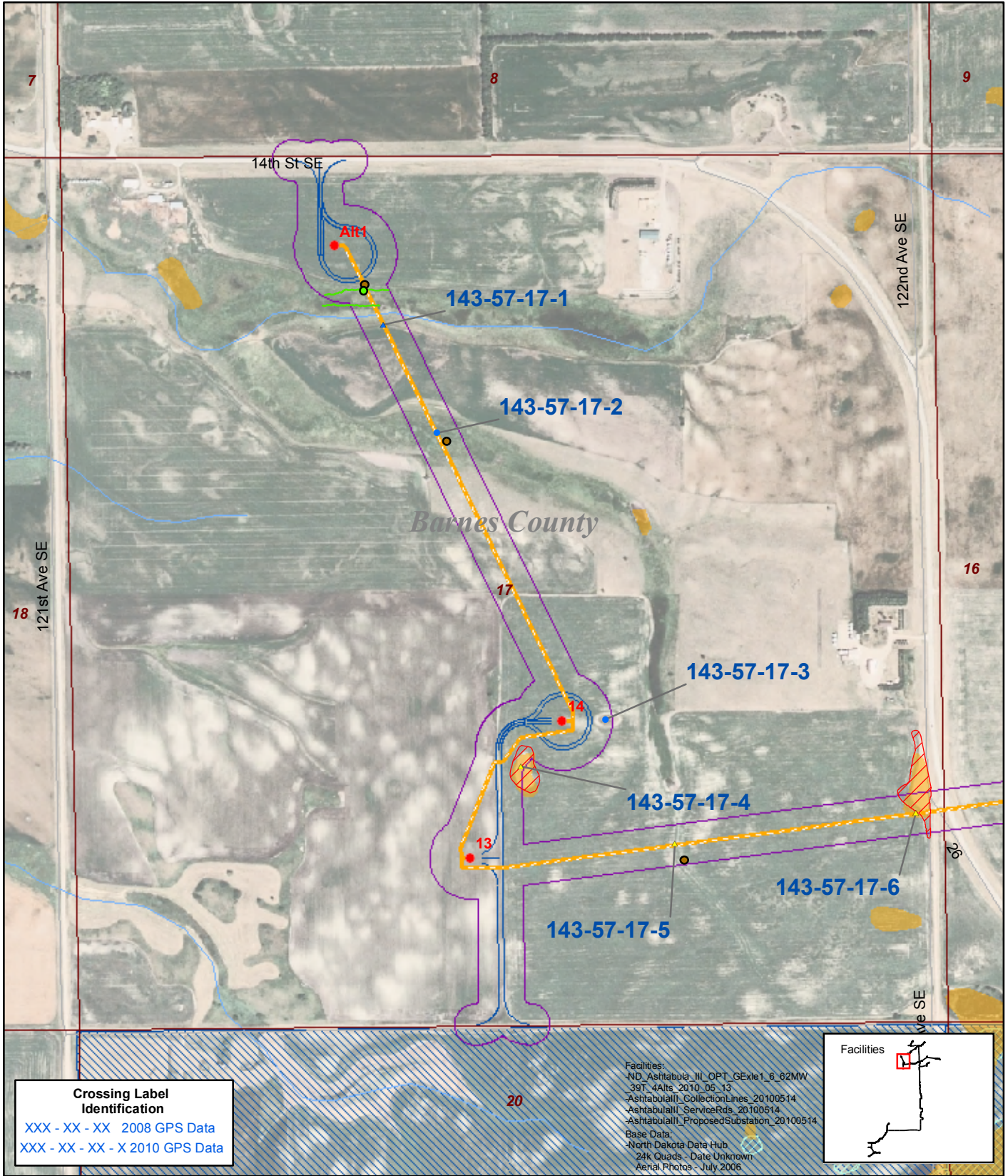


Location 143-57-16-8: View North 05-20-10



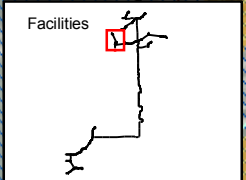
Location 143-57-16-8: View South 05-20-10

**TOWNSHIP 143N**  
**RANGE 57W**  
**SECTION 17**



**Crossing Label Identification**  
 XXX - XX - XX 2008 GPS Data  
 XXX - XX - XX - X 2010 GPS Data

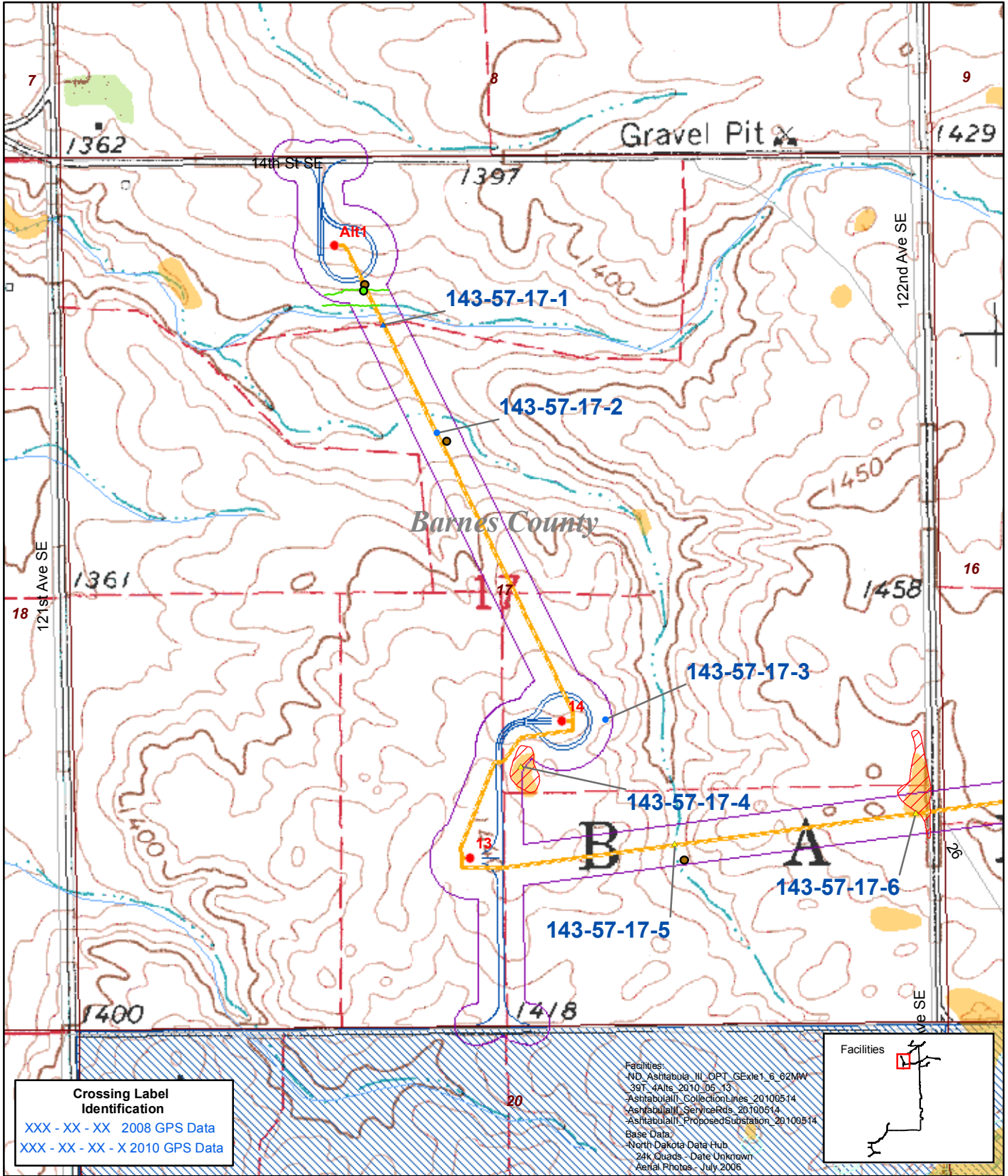
Facilities:  
 -ND\_AshTabula\_III\_OPT\_GE1x1.6\_62MW  
 -39T\_4AIts\_2010\_06\_13  
 -AshtabulaIII\_CollectionLines\_20100514  
 -AshtabulaIII\_ServiceRds\_20100514  
 -AshtabulaIII\_ProposedSubstation\_20100514  
 Base Data:  
 -North Dakota Data Hub  
 -24K Quads - Date Unknown  
 -Aerial Photos - July 2006



- |                                       |                          |                                   |
|---------------------------------------|--------------------------|-----------------------------------|
| ● Crossing Location                   | ● Culvert                | ~ River/Stream                    |
| ▲ Non-Jurisdictional Isolated Wetland | ● Non-Wetland Data Point | — Road                            |
| ▲ USACE Jurisdictional                | ● Wetland Data Point     | ○ NWI Area                        |
| ▲ USACE/USFWS Jurisdictional          | ● Turbine                | □ Section                         |
| ▲ USFWS Easement                      | — Collector              | □ Township                        |
| Wetland                               | — Service Road           | □ County                          |
| RPW Boundary                          | ■ Substation             | □ USFWS Wetland Easement          |
| Wetland Boundary                      | □ Area of Investigation  | □ USFWS Easement                  |
|                                       | ● Lake/Pond              | ■ USFWS Waterfowl Production Area |

June 28, 2010  
 Ashtabula III  
 Wind Energy Center  
 Barnes County, North Dakota

**T143N  
 R57W  
 Section 17**



0 500 1,000 Feet  
 1:10,000

**TETRA TECH** **NEXTERA ENERGY**

- Crossing Location
- ▲ Non-Jurisdictional Isolated Wetland
- ▲ USACE Jurisdictional
- ▲ USACE/USFWS Jurisdictional
- ▲ USFWS Easement
- Wetland
- RPW Boundary
- Wetland Boundary
- Culvert
- Non-Wetland Data Point
- Wetland Data Point
- Turbine
- Collector
- Service Road
- Substation
- Area of Investigation
- Lake/Pond
- River/Stream
- Road
- NWI Area
- Section
- Township
- County
- USFWS Wetland Easement
- USFWS Easement
- USFWS Waterfowl Production Area

June 28, 2010  
**Ashtabula III**  
**Wind Energy Center**  
 Barnes County, North Dakota

**T143N**  
**R57W**  
**Section 17**

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 20-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-17-1 T1A  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 17 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.208570 **Long.:** -97.932004 **Datum:** NAD 83

**Soil Map Unit Name:** Lamoure silt loam, channeled, 0 to 2 percent slopes **NWI classification:** N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Hydric Soil Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Wetland Hydrology Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants** Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>70</u> x 1 = <u>70</u> FACW species <u>30</u> x 2 = <u>60</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> <b>Column Totals:</b> <u>100</u> (A) <u>130</u> (B)  Prevalence Index = B/A = <u>1.3</u>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is > 50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Typha angustifolia	50	<input checked="" type="checkbox"/>	50.0% OBL	
2. Phalaris arundinacea	30	<input checked="" type="checkbox"/>	30.0% FACW+	
3. Carex aquatilis	20	<input checked="" type="checkbox"/>	20.0% OBL	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

**Soil**

Sampling Point: 143-57-17-1 T1A

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	2/1					Silt Loam	

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Water Table Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Saturation Present?    Yes     No     Depth (inches):    3  
 (includes capillary fringe)

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photo

**Remarks:**

Seasonal RPW w/ Adjacent Wetlands -The area was determined to be a seasonal RPW with adjacent wetlands. The adjacent wetlands exhibit positive indicators for dominant hydrophytic vegetation, positive indicators of hydric soils, and evidence of wetland hydrology. The area also possesses characteristic to classify it as relatively permanent water due to the presence of an incised channel, and defined bed and bank.



Location 143-57-17-1 T1 A: Pit 05-21-10



Location 143-57-17-1 T1 A: Pedon 05-21-10



Location 143-57-17-1 T1 A: View North 05-21-10



Location 143-57-17-1 T1 A: View South 05-21-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 20-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-17-1 T1B  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 17 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Sideslope **Local relief (concave, convex, none):** convex **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.208570 **Long.:** -97.932004 **Datum:** NAD 83

**Soil Map Unit Name:** Lamoure silt loam, channeled, 0 to 2 percent slopes **NWI classification:** N/A

**Are climatic/hydrologic conditions on the site typical for this time of year?** Yes  No  (If no, explain in Remarks.)  
**Are Vegetation**  , **Soil**  , **or Hydrology**  **significantly disturbed?** **Are "Normal Circumstances" present?** Yes  No   
**Are Vegetation**  , **Soil**  , **or Hydrology**  **naturally problematic?** (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/> <b>Hydric Soil Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Wetland Hydrology Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants** Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>50</u> x 4 = <u>200</u> UPL species <u>50</u> x 5 = <u>250</u> <b>Column Totals:</b> <u>100</u> (A) <u>450</u> (B)  Prevalence Index = B/A = <u>4.5</u>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> <b>1 - Rapid Test for Hydrophytic Vegetation</b> <input type="checkbox"/> <b>2 - Dominance Test is &gt; 50%</b> <input type="checkbox"/> <b>3 - Prevalence Index is ≤ 3.0<sup>1</sup></b> <input type="checkbox"/> <b>4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</b> <input type="checkbox"/> <b>Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)</b>  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Bromus inermis	50	<input checked="" type="checkbox"/>	50.0% UPL	
2. Taraxacum officinale	10	<input type="checkbox"/>	10.0% FACU	
3. Lolium perenne	20	<input checked="" type="checkbox"/>	20.0% FACU	
4. Pheum pratense	20	<input checked="" type="checkbox"/>	20.0% FACU	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

**Soil**

Sampling Point: 143-57-17-1 T1B

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	2/1					Silt Loam	

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

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

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

(MLRA 72 and 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

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

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes  No

**Remarks:**

Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

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

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes  No  Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes  No

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

Aerial Photo

**Remarks:**

Upland Data Point.



Location 143-57-17-1 T1 B: Pit 05-21-10



Location 143-57-17-1 T1 B: Pedon 05-21-10



Location 143-57-17-1 T1 B: View North 05-21-10



Location 143-57-17-1 T1 B: View South 05-21-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 20-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-17-2  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 17 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Flat **Local relief (concave, convex, none):** flat **Slope:** 1.0% / 0.6 °  
**Subregion (LRR):** LRR F **Lat.:** 47.206753 **Long.:** -97.930726 **Datum:** NAD 83

**Soil Map Unit Name:** Lamoure silt loam, channeled, 0 to 2 percent slopes **NWI classification:** N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants** Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)
1. _____	0	<input type="checkbox"/>	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
2. _____	0	<input type="checkbox"/>	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b>
1. _____	0	<input type="checkbox"/>	_____	Total % Cover of: _____ Multiply by: _____
2. _____	0	<input type="checkbox"/>	_____	OBL species <u>0</u> x 1 = <u>0</u>
3. _____	0	<input type="checkbox"/>	_____	FACW species <u>0</u> x 2 = <u>0</u>
4. _____	0	<input type="checkbox"/>	_____	FAC species <u>0</u> x 3 = <u>0</u>
5. _____	0	<input type="checkbox"/>	_____	FACU species <u>70</u> x 4 = <u>280</u>
	0	<b>= Total Cover</b>		UPL species <u>30</u> x 5 = <u>150</u>
<b>Herb Stratum</b> (Plot size: _____)				<b>Column Totals:</b> <u>100</u> (A) <u>430</u> (B)
1. Lolium perenne	60	<input checked="" type="checkbox"/>	60.0% FACU	Prevalence Index = B/A = <u>4.3</u>
2. Bromus inermis	30	<input checked="" type="checkbox"/>	30.0% UPL	
3. Taraxacum officinale	10	<input type="checkbox"/>	10.0% FACU	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation  
 2 - Dominance Test is > 50%  
 3 - Prevalence Index is ≤ 3.0<sup>1</sup>  
 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.

**Hydrophytic Vegetation Present?** Yes  No

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

**Soil**

Sampling Point: 143-57-17-2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	2/1					Silt Loam	

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

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

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

**(MLRA 72 and 73 of LRR H)**

**Restrictive Layer (if present):**  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

Remarks:  
 Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

**Field Observations:**

Surface Water Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
Water Table Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____	

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

Remarks:  
 Cattle Pasture.



Location 143-57-17-2: Pit 05-20-10



Location 143-57-17-2: Pedon 05-20-10



Location 143-57-17-2: View North 05-20-10



Location 143-57-17-2: View South 05-20-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 20-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-17-3  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 17 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Knob **Local relief (concave, convex, none):** convex **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.201937 **Long.:** -97.926696 **Datum:** NAD 83  
**Soil Map Unit Name:** Buse-Barnes loams, 15 to 35 percent slopes **NWI classification:** N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>40</u> x 4 = <u>160</u> UPL species <u>60</u> x 5 = <u>300</u> Column Totals: <u>100</u> (A) <u>460</u> (B)  Prevalence Index = B/A = <u>4.6</u>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
5. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is > 50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Bromus inermis	60	<input checked="" type="checkbox"/>	60.0% UPL	
2. Lolium perenne	40	<input checked="" type="checkbox"/>	40.0% FACU	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: View North (Page 1), View South (Page 1)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.





Location 143-57-17-3: View North 05-20-10



Location 143-57-17-3: View South 05-20-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 20-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-17-4  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 17 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.201170 **Long.:** -97.928778 **Datum:** NAD 83  
**Soil Map Unit Name:** Barnes-Svea loams, 3 to 6 percent slopes **NWI classification:** PEMA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation  , Soil  , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation  , Soil  , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Stratum	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>2</u> (A)
1. _____	0	<input type="checkbox"/>	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
2. _____	0	<input type="checkbox"/>	_____	Percent of dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b>
1. _____	0	<input type="checkbox"/>	_____	Total % Cover of: _____ Multiply by: _____
2. _____	0	<input type="checkbox"/>	_____	OBL species <u>70</u> x 1 = <u>70</u>
3. _____	0	<input type="checkbox"/>	_____	FACW species <u>0</u> x 2 = <u>0</u>
4. _____	0	<input type="checkbox"/>	_____	FAC species <u>0</u> x 3 = <u>0</u>
5. _____	0	<input type="checkbox"/>	_____	FACU species <u>0</u> x 4 = <u>0</u>
	0	<b>= Total Cover</b>		UPL species <u>0</u> x 5 = <u>0</u>
<b>Herb Stratum</b> (Plot size: _____)				<b>Column Totals:</b> <u>70</u> (A) <u>70</u> (B)
1. Polygonum amphibium	40	<input checked="" type="checkbox"/>	40.0% OBL	Prevalence Index = B/A = <u>1</u>
2. Carex aquatilis	30	<input checked="" type="checkbox"/>	30.0% OBL	
3. Xanthium spinosum	30	<input checked="" type="checkbox"/>	30.0% NI	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	0	<input type="checkbox"/>	_____	
2. _____	0	<input type="checkbox"/>	_____	
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				
<b>Remarks:</b>				Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>

Vegetation dominated by hydrophytes.  
 Photos: View North (Page 1), View South (Page 1)

**Soil**

Sampling Point: 143-57-17-4

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |  |
|--|--|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)                 |  |
| <input type="checkbox"/> Coastal Prairie Redox (A16) (LRR F, G, H) |  |
| <input type="checkbox"/> Dark Surface (S7) (LRR G)                 |  |
| <input type="checkbox"/> High Plains Depressions (F16)             |  |
| <b>(LRR H outside of MLRA 72 and 73)</b>                           |  |
| <input type="checkbox"/> Reduced Vertic (F18)                      |  |
| <input type="checkbox"/> Red Parent Material (TF2)                 |  |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12)          |  |
| <input type="checkbox"/> Other (Explain in Remarks)                |  |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Soil profile not investigated. Listed as hydric by the NRCS.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

- |   |  |
|---|--|
| <input type="checkbox"/> Surface Soil Cracks (B6)                   |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)    |  |
| <input type="checkbox"/> Drainage Patterns (B10)                    |  |
| <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |  |
| <b>(where tilled)</b>   |  |
| <input type="checkbox"/> Crayfish Burrows (C8)                      |  |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  |  |
| <input type="checkbox"/> Geomorphic Position (D2)                   |  |
| <input checked="" type="checkbox"/> FAC-neutral Test (D5)           |  |
| <input type="checkbox"/> Frost Heave Hummocks (D7) (LRR F)          |  |

**Field Observations:**

Surface Water Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <u>  3  </u>
Water Table Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): _____

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photo

**Remarks:**

Isolated Wetland - possesses no discreet or confined surface or shallow subsurface connection to a tributary stream eventually flowing into a navigable water of the United States. Therefore, this wetland is not hydrologically connected to a water of the United States.



Location 143-57-17-4: View North 05-20-10



Location 143-57-17-4: View South 05-20-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 20-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-17-5  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 17 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Swale **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.199849 **Long.:** -97.925032 **Datum:** NAD 83

**Soil Map Unit Name:** Barnes-Buse loams, 6 to 9 percent slopes **NWI classification:** N/A

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation  , Soil  , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation  , Soil  , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does not meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

Dominant Species? FWS Region:

Tree Stratum (Plot size: _____)	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
1. _____	0	<input type="checkbox"/>	_____	Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
			<b>= Total Cover</b>	
<b>Sapling/Shrub Stratum (Plot size: _____)</b>				
1. _____	0	<input type="checkbox"/>	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>20</u> x 4 = <u>80</u> UPL species <u>50</u> x 5 = <u>250</u> Column Totals: <u>70</u> (A) <u>330</u> (B)  Prevalence Index = B/A = <u>4.714</u>
2. _____	0	<input type="checkbox"/>	_____	
3. _____	0	<input type="checkbox"/>	_____	
4. _____	0	<input type="checkbox"/>	_____	
5. _____	0	<input type="checkbox"/>	_____	
			<b>= Total Cover</b>	
<b>Herb Stratum (Plot size: _____)</b>				
1. Triticum x aestivum	50	<input checked="" type="checkbox"/>	71.4% UPL	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is > 50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
2. Taraxacum officinale	20	<input checked="" type="checkbox"/>	28.6% FACU	
3. _____	0	<input type="checkbox"/>	0.0%	
4. _____	0	<input type="checkbox"/>	0.0%	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
			<b>= Total Cover</b>	
<b>Woody Vine Stratum (Plot size: _____)</b>				
1. _____	0	<input type="checkbox"/>	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input type="radio"/> No <input checked="" type="radio"/>
2. _____	0	<input type="checkbox"/>	_____	
			<b>= Total Cover</b>	
<b>% Bare Ground in Herb Stratum</b> <u>30</u>				

**Remarks:**  
 Vegetation dominated by non-hydrophytes.  
 Photos: Pit (Page 1), Pedon (Page 1), View North (Page 2), View South (Page 2)

**Soil**

Sampling Point: 143-57-17-5

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type1	Loc <sup>2</sup>		
0-16	10YR	2/1					Silt Loam	

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

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

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

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |
|--|
| <input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)                 |
| <input type="checkbox"/> Coastal Prairie Redox (A16) (LRR F, G, H) |
| <input type="checkbox"/> Dark Surface (S7) (LRR G)                 |
| <input type="checkbox"/> High Plains Depressions (F16)             |
| <b>(LRR H outside of MLRA 72 and 73)</b>                           |
| <input type="checkbox"/> Reduced Vertic (F18)                      |
| <input type="checkbox"/> Red Parent Material (TF2)                 |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12)          |
| <input type="checkbox"/> Other (Explain in Remarks)                |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**    Yes     No

**Remarks:**

Hydric soil was determined to be present based on black histic within 16 inches of the surface.

**Hydrology**

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (minimum of two required)

- |   |
|---|
| <input type="checkbox"/> Surface Soil Cracks (B6)                   |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)    |
| <input checked="" type="checkbox"/> Drainage Patterns (B10)         |
| <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |
| <b>(where tilled)</b>   |
| <input type="checkbox"/> Crayfish Burrows (C8)                      |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)  |
| <input type="checkbox"/> Geomorphic Position (D2)                   |
| <input type="checkbox"/> FAC-neutral Test (D5)                      |
| <input type="checkbox"/> Frost Heave Hummocks (D7) (LRR F)          |

**Field Observations:**

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

**Wetland Hydrology Present?**    Yes     No

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

Aerial Photo

**Remarks:**

Farmed Swale.



Location 143-57-17-5: Pit 05-20-10



Location 143-57-17-5: Pedon 05-20-10



Location 143-57-17-5: View North 05-20-10



Location 143-57-17-5: View South 05-20-10

**WETLAND DETERMINATION DATA FORM - Great Plains Region**

**Project/Site:** Ashtabula 3 Wind Energy Center **City/County:** Barnes **Sampling Date:** 20-May-10  
**Applicant/Owner:** NextEra **State:** ND **Sampling Point:** 143-57-17-6  
**Investigator(s):** MRE/CAY **Section, Township, Range:** S 17 T 143 R 57  
**Landform (hillslope, terrace, etc.):** Pothole **Local relief (concave, convex, none):** concave **Slope:** 2.0% / 1.1 °  
**Subregion (LRR):** LRR F **Lat.:** 47.200317 **Long.:** -97.919120 **Datum:** NAD 83

**Soil Map Unit Name:** Barnes-Buse loams, 3 to 6 percent slopes **NWI classification:** PEMA

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.**

<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Hydric Soil Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/> <b>Wetland Hydrology Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Remarks:</b> Based on the data collected, this location does meet the definition of a wetland as defined by the USACE 1987 Wetland Delineation manual and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.	

**VEGETATION - Use scientific names of plants**

**Dominant Species?** FWS Region:

Stratum	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
<b>Tree Stratum</b> (Plot size: _____)				Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of dominant Species That Are OBL, FACW, or FAC: <u>75.0%</u> (A/B)
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>70</u> x 1 = <u>70</u> FACW species <u>30</u> x 2 = <u>60</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> <b>Column Totals:</b> <u>100</u> (A) <u>130</u> (B)  Prevalence Index = B/A = <u>1.3</u>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
3. _____	0	<input type="checkbox"/>		
4. _____	0	<input type="checkbox"/>		
5. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>Herb Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is > 50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. Phalaris arundinacea	30	<input checked="" type="checkbox"/>	30.0% FACW+	
2. Carex aquatilis	20	<input checked="" type="checkbox"/>	20.0% OBL	
3. Polygonum amphibium	20	<input checked="" type="checkbox"/>	20.0% OBL	
4. Scirpus acutus	30	<input checked="" type="checkbox"/>	30.0% OBL	
5. _____	0	<input type="checkbox"/>	0.0%	
6. _____	0	<input type="checkbox"/>	0.0%	
7. _____	0	<input type="checkbox"/>	0.0%	
8. _____	0	<input type="checkbox"/>	0.0%	
9. _____	0	<input type="checkbox"/>	0.0%	
10. _____	0	<input type="checkbox"/>	0.0%	
	100	<b>= Total Cover</b>		
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="radio"/> No <input type="radio"/>
1. _____	0	<input type="checkbox"/>		
2. _____	0	<input type="checkbox"/>		
	0	<b>= Total Cover</b>		
<b>% Bare Ground in Herb Stratum</b> <u>0</u>				

**Remarks:**  
 Vegetation dominated by hydrophytes.  
 Photos: View North (Page 1), View South (Page 1)

\*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.





Location 143-57-17-6: View North 05-20-10



Location 143-57-17-6: View South 05-20-10