

**STARK COUNTY, NORTH DAKOTA  
FLOODPLAIN DEVELOPMENT PERMIT APPLICATION  
NON-BUILDING SITUATION**

(Attach additional information as necessary)

**1. GENERAL INFORMATION:**

Community: Rural Stark County

PERMIT # 20160714 DATE: June 24, 2016

Applicant: John DiDonato, NextEra Energy  
Address: 700 Universe Boulevard, Juno Beach, FL 33408  
Telephone #: 561-304-5244

Contractor: Chris Ansari, Tetra Tech, Inc.  
Address: 350 Indiana Street, Suite 500, Golden, CO 80401  
Telephone #: 303-217-5700

Estimated Cost of project: \$ 270,500,000

**Description and location of proposed development:**

Brady Wind Energy Center (Project). Field surveys were completed October through February 2016. The Project includes the construction of wind turbines and an associated transmission line in Stark County, North Dakota.

Brady Wind, LLC (Brady Wind), a wholly-owned, indirect subsidiary of NextEra Energy Resources, LLC (NEER), is proposing to construct the Brady Wind Energy Center (Project) in southern Stark County, North Dakota (**Attachment 2 Map Sheets**). The Project area is the location within which Brady Wind has negotiated easements with landowners.

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

This permit application is for additional temporary impacts to floodplains that were identified after the original permit for Brady Wind was approved (Permit No. 0517201601). These additional temporary impacts are the result of additional area needed at the turning points along existing roads for the large equipment vehicles to gain access to the area. Table 1 below lists the infrastructure type, temporary impact acreage, and the location on the Map Sheets (Attachment 2).

Table 1. Temporary Floodplain Impacts

Infrastructure Type	Temporary Impact acreage	Latitude	Longitude	Map Sheet <sup>1</sup>	FIRM Map Panel <sup>2</sup>
Additional Turning Radius	0.229578	46.688057	-102.789313	1	700
Additional Turning Radius	0.853328	46.644268	-102.894326	2	700
Additional Turning Radius	0.232627	46.673118	-102.915101	3	675

<sup>1</sup> Map Sheets are located in Attachment 2.

<sup>2</sup> FIRM Maps are located in Attachment 3.

**2. FLOODPLAIN DETERMINATION:** (fill-in the appropriate information)

Map information:

FIRM Date: Attachment 3 FIRM maps

FIRM Zone: All floodplains in Project are Zone A

Project is located in:

100-year floodplain (Flood Fringe): yes

\*Regulatory Floodway: Not applicable

(\*a hydraulic analysis is needed by a registered professional engineer unless determined otherwise by the community, please explain.)

BFE at Development Site: \_\_\_\_\_ (MSL)

Development will be elevated to: \_\_\_\_\_ (MSL)

**3. DEVELOPMENT ACTIVITIES:** (check all that apply)

- Fill placement (fill brought in from outside the floodplain)
  - Excavation (where subgrade fill is removed from the floodplain)
  - Landscaping (cut and fill, fill borrow and placement)
  - Construction or maintenance of a dike/levee/floodwall
  - Removal of fill, embankment, or dikes
  - Watercourse alterations (river, stream, lake - channel modifications, rip-rap)
  - Road, street or bridge construction (new, repair or replacement, realignment)
  - Drainage improvements (including culvert work)
  - Mining (removal of gravel, rock, fill or other natural materials)
  - Installation of utilities (water sewer, pipeline, gas, electric, communications)
  - Tower construction (communications tower, antennae etc.)
  - Pipeline construction (temporary construction activity)
  - Well drilling (water, oil, natural gas etc.)
  - Subdivision (new or expansion of existing subdivision)
  - Other (please specify) \_\_\_\_\_
- 
- 

**4. ADDITIONAL INFORMATION, PERMITS OR NOTIFICATION:**

(Attach additional information)

See **Attachment 1** for additional information

- Comments or further explanation of work:
- Copies of project description, plans, blueprints, etc.
- Wetlands - will the activity impact identified wetlands? Notify U.S. Army Corps of Engineers?
- Will the development aggravate flooding elsewhere? Notify Water Resource District and/or Neighboring political entity?

**5. ELEVATION INFORMATION:**

Attach information about the completed project elevations(s) with registered professional engineer or registered land surveyor certifications if part of the project.

The project is anticipated to have minimal impacts to the associated floodplains.

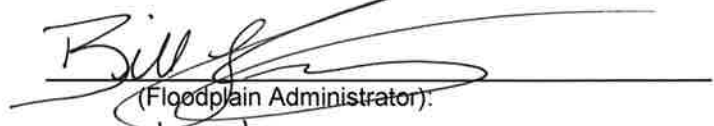
**6. ACTION / APPROVAL:**

The proposed development is in conformance with applicable community floodplain standards.

Comments or Conditions of the permit: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

PERMIT IS APPROVED (Conditioned on receiving as-built information/certification)

Signature

  
(Floodplain Administrator):

Date:

07/14/16

**PLEASE SUBMIT COMPLETED APPLICATION TO:**  
STARK COUNTY DEPARTMENT OF EMERGENCY SERVICES  
BILL FAHLSING  
66 MUSEUM DRIVE WEST  
DICKINSON, ND 58601  
BFAHLSING@STARKCOUNTYND.GOV

**Attachment 1:  
Supplement for Section 4. Additional  
Information, Permits, or Notification**

#### 4. Additional Information for the Floodplain Permit

- a. Comments or further explanation of work:

##### Haul Route Turning Radius Construction

Haul route turning radius are locations at the intersections of existing roads that may need to be temporarily widened to allow for equipment vehicles the necessary turning space to gain access to the wind turbine locations. The additional space required is filled with locally available material to road grade elevation. **Once the equipment has been delivered, the temporary disturbance will be returned to the original contour and grade and the fill material will be removed.** A total of three haul route turning radius locations would cross floodplains. No permanent change in base elevation is anticipated from the temporary fill for the turning radius locations.

- b. Copies of project description, plans, blueprints, etc.

The project description is provided in Section 1 of the permit application. Attached are figures and FIRM maps of the project area.

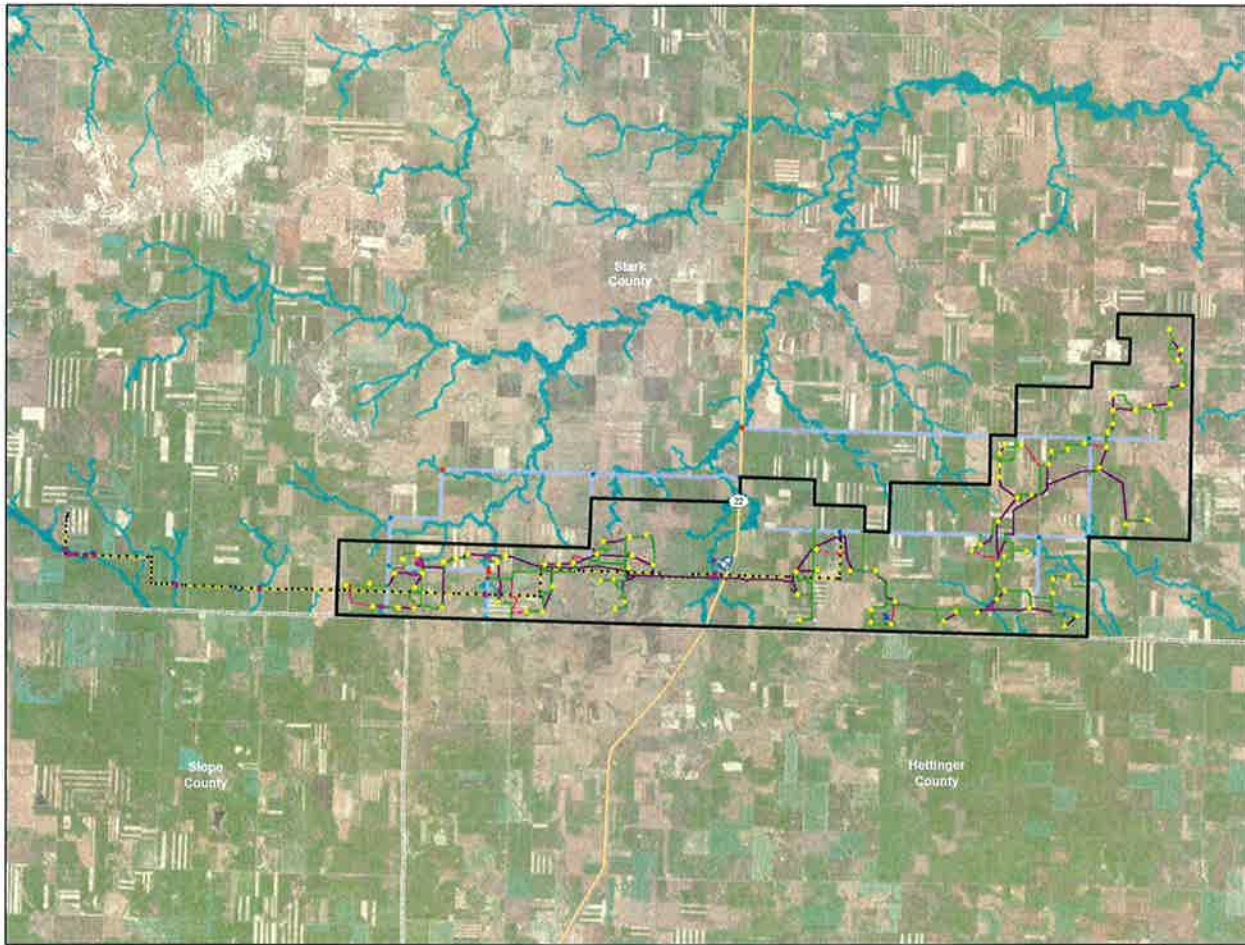
- c. Wetlands – Will the activity impact identified wetlands? Notify the U.S. Army Corps of Engineers?

The Project is anticipated to have very minor acreages of temporary impacts to floodplains from the haul route turning radiuses mentioned above. The Project will not exceed the threshold of 0.10 acres of impacts to wetlands or other waters of the U.S. that would require the completion of a preconstruction notification (PCN) to the USACE. There have been several informal discussions with the USACE/Bismarck Regulatory Office regarding permitting requirements for the Project. No Clean Water Act Section 404 permitting is anticipated for the Project at this time.

- d. Will the development aggravate flooding elsewhere? Notify Water Resource District and/or Neighboring political entity?

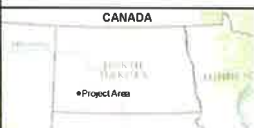
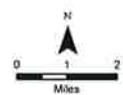
The Project is anticipated to have relatively minor impacts on flooding. Cumulatively, the project will have 2.77 acres of temporary impacts to floodplains (1.31 acres for this action, 1.46 from previously permitted actions), but all of these temporary impacts will be returned to the original contour and grade following installation. Notification of neighboring water resource districts or political entities has not been requested.

## **Attachment 2: Map Sheets**



**Temporary Project Impacts in 100-year Floodplain**  
 Brady Wind Energy Center  
 Stark County, North Dakota

- Legend**
- Project Area
  - Proposed Turbine
  - Proposed Transmission Poles
  - Proposed Transmission Line
  - Proposed Service Roads
  - Proposed Collection Line
  - Proposed Haul Routes
  - Proposed Turbine Storage Area
  - Proposed Crane Paths
  - Turning Radius
  - Temporary Impact Footprint
  - 100-year Floodplain (Zone A)
  - Delineated Wetland
  - Temporary Impacts In Floodplain
  - Floodplain Impacts Previously Permitted




















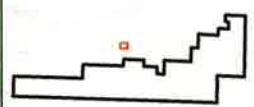
**Temporary Project Impacts in  
100-year Floodplain  
Sheet 1 of 3**

Brady Wind Energy Center  
Stark County, North Dakota















**Legend**

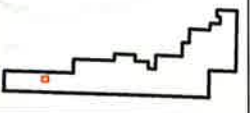
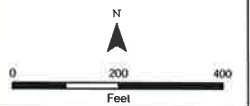
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-  100-year Floodplain (Zone A)
-  Delineated Wetland
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-  Floodplain Impacts Previously Permitted

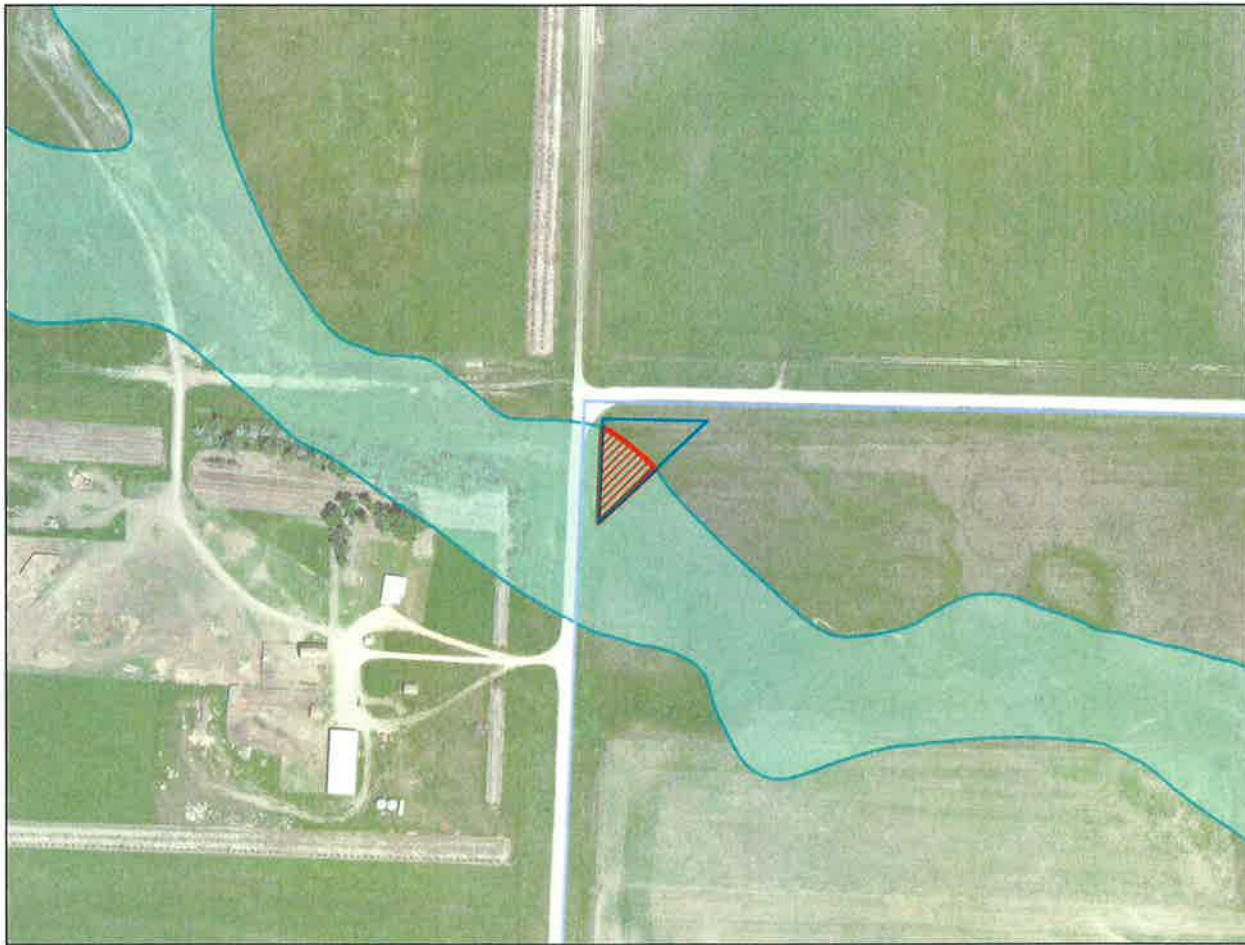
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Temporary Project Impacts in  
100-year Floodplain  
Sheet 2 of 3  
Brady Wind Energy Center  
Stark County, North Dakota

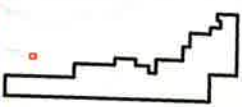
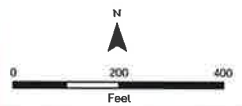
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  -  Proposed Turbine Storage Area
  -  Proposed Crane Paths
  -  Turning Radius
  -  Temporary Impact Footprint
  -  100-year Floodplain (Zone A)
  -  Delineated Wetland
  -  Temporary Impacts in Floodplain
  -  Floodplain Impacts Previously Permitted





Temporary Project Impacts in  
100-year Floodplain  
Sheet 3 of 3  
Brady Wind Energy Center  
Stark County, North Dakota

- Legend**
- Project Area
  - Proposed Turbine
  - Proposed Transmission Poles
  - Proposed Transmission Line
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  - 100-year Floodplain (Zone A)
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# **Attachment 3: FIRM Maps**



