

# **Whooping Crane Monitoring Plan**

## **Campbell County Wind Farm 2, LLC 2024**



**Revision 2.0: October 28<sup>th</sup>, 2024**

## Whooping Crane History and Behavior

The whooping crane was federally listed as endangered in the US in 1967 (32 FR 4001 [March 11, 1967]) and is considered a species of greatest conservation need in South Dakota (South Dakota Game, Fish, and Parks [SDGFP] 2022). There are currently four non-captive whooping crane populations, but only the Aransas/Wood Buffalo whooping crane population (AWBP) is naturally occurring, self-sustaining, and protected under the ESA (Urbanek and Lewis 2020). The AWBP was estimated at 543 individuals in the most recent (2021–2022) available winter census data (Butler et al. 2022) and the population has remained fairly stable since 2017 (Harrell and Bidwell 2020).

The AWBP breeds in Wood Buffalo National Park in Canada and winters along the Texas coast, including in the Aransas National Wildlife Refuge (NWR; Urbanek and Lewis 2020). The breeding grounds are characterized by numerous potholes (Canadian Wildlife Service and U.S. Fish and Wildlife Service [USFWS] 2007) that form shallow wetlands of various shapes and sizes (Urbanek and Lewis 2020). Wintering grounds at Aransas NWR and adjacent areas of the central Texas coast consist of estuarine marshes, shallow bays, tidal flats (Urbanek and Lewis 2020) and occasionally rangelands or farmlands.

Spring migration ranges between March 25 and mid-May and fall migration ranges between mid-September and mid-November (USFWS 2007). Whooping cranes are daytime migrants and are known to travel individually, in family groups, or in small flocks (up to five individuals), however, larger flocks (six or more individuals) have been observed more frequently in recent decades (Caven et al. 2020). Whooping cranes occasionally join flocks of sandhill cranes (*Antigone canadensis*) for part of their migration (Urbanek and Lewis 2020). Ninety-five percent of whooping crane sightings occur within a 183-mi wide corridor (Pearse et al. 2018) and the Project occurs within the 95% whooping crane migration corridor (Figure 1.1). Migration flights generally occur between 1,000 and 6,000 feet (ft) above the ground, but whooping cranes fly at lower altitudes when starting or ending a migratory flight, especially when thermal currents are minimal or when making brief mid-day stopovers to forage (USFWS 2009).

Whooping cranes are known to choose stopover sites during migration that sandhill cranes are already utilizing (USFWS 2009). On average, migrating whooping cranes make 11 to 12 overnight stopovers and four multi-day stopovers during each migration season (Pearse et al. 2020). Individuals do not appear to exhibit site fidelity to overnight stopover sites (Pearse et al. 2020), but some areas on the landscape have a higher intensity of stopover use than others (Pearse et al. 2015). Stopover sites provide roosting and foraging areas, typically within 0.6 mi of each other (Urbanek and Lewis 2020) and can include palustrine or lacustrine wetlands, prairie and wet meadows, rivers, and agricultural fields (USFWS 2007).

## Project Description

Campbell County Wind Farm 2 (CCWF2) is a 98-megawatt (MW) wind generation project located in northcentral South Dakota along SD Highway 1804 south of Pollock. The project owned and operated by RWE consists of 29 GE 3.4 MW-140 wind turbines across nearly 12,000 acres of

land. The project area consists predominantly of agricultural row-crops with some grassland areas.

### **Training for CCWF2 O&M and OEM Employees**

To ensure that all CCWF2 employees, construction, operations and maintenance personnel, and Original Equipment Manufacturer (OEM) employees can readily identify whooping cranes and be prepared to implement contingencies, all site employees will receive two annual trainings on this monitoring plan prior to the start of each migration season. In addition to the Whooping Crane monitoring plan training, additional training will be conducted on an annual basis for the site's Wildlife Incident Reporting procedure. A poster of whooping crane identification will be displayed year-round in a common area of the main office building (e.g., kitchen or bulletin) to aid in the education and identification of the species. Plan training will be documented and kept on file at the O&M building. Training will be also provided to new CCWF2 and OEM employees during their initial EH&S orientation program. The following are the minimum topics to be covered during the initial and annual training:

- Regulatory context, natural history, and behavior of the whooping crane.
- Identification of whooping crane adults and juveniles (e.g., photographs) and differentiating among similar species (i.e., sandhill crane [*Grus canadensis*], American white pelican [*Pelecanus erythrorhynchos*], great egret [*Ardea alba*], swan [*Cygnus* spp.], and snow goose [*Anser caerulescens*]).
- Avoiding harassing whooping cranes on the ground.
- Reporting and response procedures if a whooping crane is sighted.

### **Construction and Operation Whooping Crane Monitoring**

Whooping crane monitoring will be focused during the spring and fall migration seasons during construction and operation of the CCWF2. The spring migration season is defined as approximately April 1 to May 15, and the fall migration season is September 10 to October 31. South Dakota Ecological Services Field Office may be contacted to define the timing of annual whooping crane migration in subsequent years. Monitoring will take place daily by a dedicated trained monitor, and because whooping cranes are diurnal migrants, will primarily focus with the first and last two hours of daylight each day. A Construction Manager or Site Manager (or their designee) will drive along public roads and CCWF2 access roads within two miles of turbine locations and visually scan the skies, fields, grasslands, wetlands, and other open areas for the presence of cranes, using binoculars or a spotting scope on a daily basis. If any whooping cranes are observed, the number of cranes, UTM location coordinates, and behavior will be recorded, along with maps depicting any flight paths within the CCWF2 project. Any flocks of sandhill cranes (*Grus canadensis*) will also be examined closely because whooping cranes sometimes travel with sandhill cranes.

The whooping crane monitoring protocol applies to both construction and operation periods as stated below:

- Construction Manager or their designee will conduct construction monitoring during the above defined spring and fall migration seasons and stop construction activities (see shut-down protocol below) within two miles of observed whooping cranes until the area is vacated.
- Site Manager or their designee will conduct operational monitoring during the above defined spring and fall migration seasons. Operations staff will be trained to identify whooping cranes, and if any are noted the CCWF2 project, turbines within two miles of the whooping crane(s) will be shut down (see shut down protocol below) until whooping cranes have vacated the area.

### **Activity Shut-Down Protocol**

If construction personnel or a monitor observe a crane(s) within two miles of the Project, the Construction Manager or their designee will halt construction activities within two miles of the observed crane(s) until cranes(s) are greater than two miles away. CCWF2 will inform the US Fish and Wildlife Service and South Dakota Game Fish and Parks of any whooping crane observations, and any construction modification made based on the location of the observation.

Similarly, if operations personnel or a monitor observes a crane(s) within two miles of the Project, the Site Manager or their designee will halt all turbine operations within two miles of the observed crane(s) until whooping cranes(s) are more than two miles away for more than two hours. CCWF2 will inform the USFWS and SDGFP of any whooping crane observations and any corresponding shut-down of turbines.

### **Operational Monitoring Plan Review**

This plan shall be reviewed and updated at least every five years. However, if a condition occurs that warrants a more frequent update, it may be incorporated on an as needed basis. Any updates to the plan shall be made in cooperation with USFWS and SDGFP.

## Appendix A

### Operational Response to Whooping Crane Observation in Flight

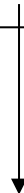
Person who identifies whooping crane (WHCR) in flight **immediately** contacts O&M Manager or designee by cell phone or radio. Provides location, number of WHCRs observed, and approximate altitude (above or below rotor sweep)



If WHCR(s), are observed within 2 miles of the project site, site team to begin controlled shutdown of turbines. If WHCR lands within or near project boundaries follow procedure in Appendix B.



O&M Manager or designee shall complete Whooping Crane Notification form and make verbal notifications to SDGFP and USFWS. Additional notifications to WAPA to be followed per notification procedures



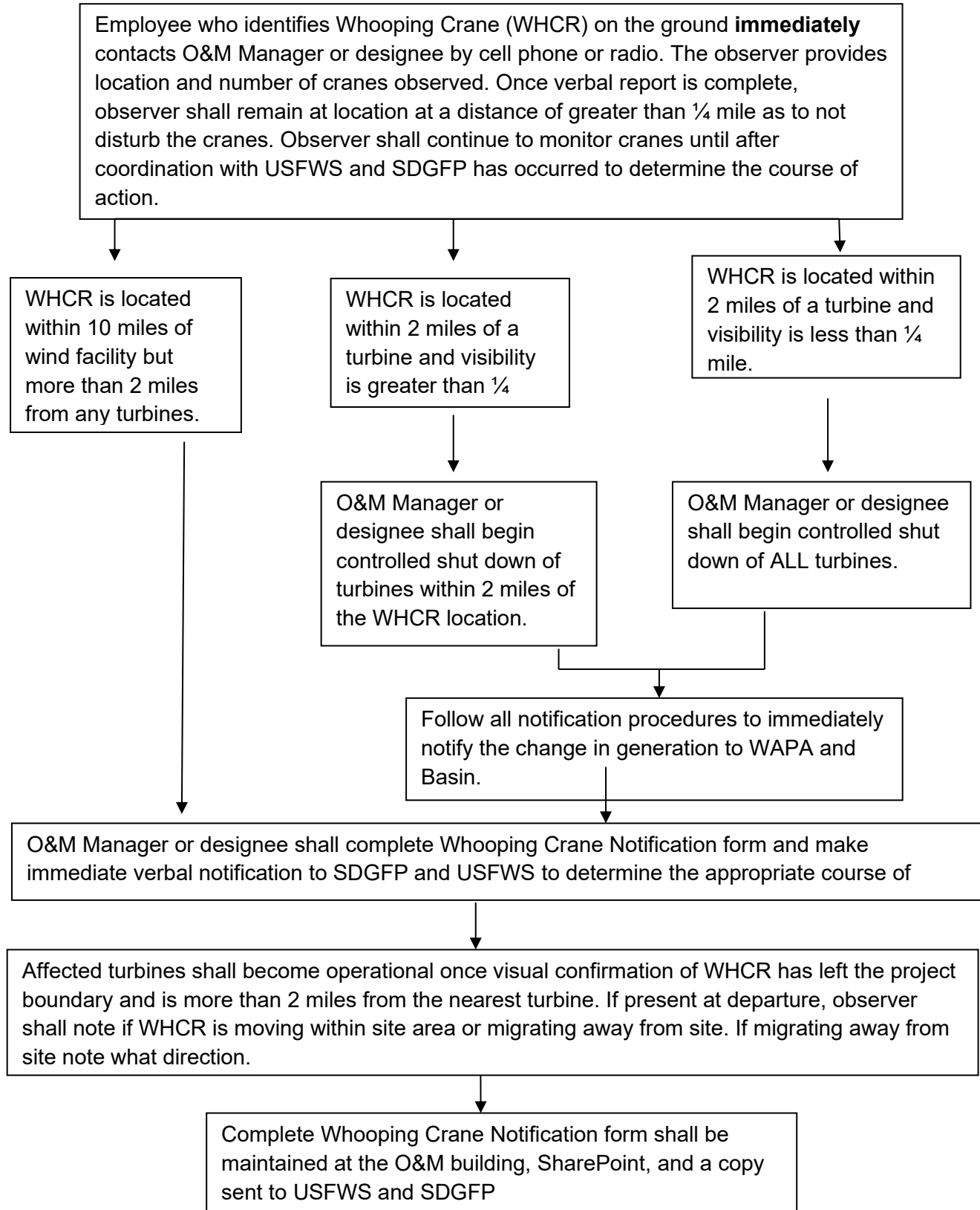
Affected turbines shall become operational once visual confirmation of the WHCR has the left the project boundary for at least 15 minutes and are more than 2 mile from turbines.



Complete Whooping Crane Notification form shall be maintained at the O&M building, SharePoint, and a copy sent to SDGFP and USFWS.

## Appendix B

### Operational Response to Whooping Crane Observation on Ground



**Form A**

**Whooping Crane Notification Form**

Whooping crane observation date and time:

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Observer name(s) and  
company: \_\_\_\_\_

Whooping crane(s) flying or on the ground: Flying ( ) or Ground ( )

Location of observation (turbine numbers, distance and direction of turbine):

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Number of whooping crane(s) identified:

\_\_\_\_\_

Current weather conditions:

Visibility: \_\_\_\_\_

Sky cover: \_\_\_\_\_

Wind: \_\_\_\_\_

Whooping crane monitoring plan:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Were turbines shut down: Yes ( ) or No ( )

Turbines affected by shut down:

\_\_\_\_\_

Shut down start time:

\_\_\_\_\_

Shut down end time and date:

\_\_\_\_\_

Were outside agencies contacted: Yes ( ) or No ( ) if yes list names, dates and times:

\_\_\_\_\_

\_\_\_\_\_

Form completed by: \_\_\_\_\_ Date:

\_\_\_\_\_

Maintain a copy at the O&M Building



## **Contact Information**

### **RWE**

John Douglas	Business	(605) 277-1305
CCWF2 O&M Manager	Mobile	(605) 850-9428

Carl Gjeffe	Mobile	(605) 850-9431
CCWF2 Senior Site Operator		

Jesse Dienert	Mobile	(605) 850- 1214
CCWF2 Site Operator		

John Oldi	Mobile	(914) 260-4964
Manager of Environmental Programs		

Tyler Juhl	Mobile	(507) 215 1283
Midwest Regional Manager		

### **USFWS**

U.S. Fish and Wildlife Service	Business	(605) 224-8693
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### **SDGFP**

South Dakota Game Fish and Parks	Business	(605) 223-7660
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