Authorization for Incidental Take and Implementing Agreement

Pursuant to the Illinois Endangered Species Protection Act (520 ILCS 10/5.5), on behalf of Big Sky Wind, LLC, authorization for the incidental take of the State listed Regal fritillary butterfly, Blanding's turtle, Illinois mud turtle, and Western hognose snake in Bureau and Lee Counties, Illinois [associated with the Big Sky Windpower Project - NRC Project No. 06-319-01; as described/shown in the conservation plan received by the Department on 5 January 2006] is hereby granted, subject to the terms and conditions described in the attached Authorization and Implementing Agreement. The Illinois Department of Natural Resources has determined that this authorized take is incidental to the construction of the Big Sky Windpower Project, in Bureau and Lee Counties, Illinois.

Procedural History

Big Sky Wind, LLC prepared a conservation plan for the Big Sky Windpower Project - NRC Project No. 06-319-01 as described by the Illinois Endangered Species Protection Act (520 ILCS 10/5.5). That plan and Big Sky Wind, LLC's request for authorization for incidental take of the Regal fritillary butterfly, Blanding's turtle, Illinois mud turtle, and Western hognose snake in Bureau and Lee Counties, Illinois were received by the Illinois Department of Natural Resources (Department) on 5 January 2006. Public notice of Big Sky Wind, LLC's request for authorization of incidental take of these State listed species was published in the Edwardsville Intelligencer (Official State newspaper) and the Dixon Telegraph (Lee County) and Bureau County Republican on January 30, 2007, as well as on February 6, 2007 and February 15, 2007. Public comments on Big Sky Wind, LLC's conservation plan were accepted by the Department until March 15, 2007. No comments were received by the public during the period of January 30, 2007 through March 15, 2007.

The Big Sky Windpower Project is a state-of-the art wind energy project located in Lee and Bureau Counties, Illinois. The wind project has a nameplate capacity of 240 megawatts and consists of up to one hundred and twenty five 2.1 MW wind turbine generators (WTGs). The WTGs are situated on over 13,000 acres in May and East Grove Townships, Lee County and Ohio and Walnut Townships, Bureau County, but the entire project foot print will only occupy a total of approximately 100 acres. The entire output of the windpower project will be enough to power approximately 90,000 average households.

The project area consists of flat to rolling topography in a highly agricultural setting. Land use on well over 90 percent of the land within the overall Big Sky Windpower Project limits is farmstead or row crop production. A limited number of scattered and fragmented woodlands, wetlands and pasture/old field habitats are found within the project limits.

Target Species

Regal Fritillary Butterfly (*Speyeria idalia*) – (Illinois) State Threatened

Blanding's Turtle (*Emydoidea blandingii*) – Threatened

Illinois Mud Turtle (*Kinosternon flavescens*) – Endangered

Western Hognose Snake (*Heterodon nasicus*) – Threatened

Compliance with the Endangered Species Protection Act

The Illinois Endangered Species Protection Act includes six (6) criteria which must be met for the authorization of incidental take of an endangered or threatened species. These criteria and the Department's determination for each criteria are listed below.

1. The taking will not be the purpose of, but will only be incidental to, the carrying out of an otherwise lawful activity:

The Big Sky Windpower Project is a state-of-the art wind energy project located in Lee and Bureau Counties, Illinois. The wind project has a nameplate capacity of 240 megawatts and consists of up to one hundred and twenty five 2.1 MW wind turbine generators (WTGs). The WTGs are situated on over 13,000 acres in May and East Grove Townships, Lee County and Ohio and Walnut Townships, Bureau County, but the entire project foot print will only occupy a total of approximately 100 acres. The entire output of the windpower project will be enough to power approximately 90,000 average households.

Each WTG is manufactured off site and consists of a 263-foot tower, a nacelle that houses the generator and gearbox, and a three-blade rotor assembly, all of which is shipped to the project location and assembled on-site. From the base of the tower to the tip of the blade, the total height of the WTG is 410 feet. One hundred and twenty-five steel reinforced concrete foundations will be constructed in Lee and Bureau Counties to anchor each WTG. A pad mount transformer will be installed at the base of each WTG and will collect electricity generated by each turbine through cables routed down the inside of the tower. The purpose of the pad mount transformer is to step the voltage up from 600 volts to 34.5 kilovolts (kV) to efficiently transmit power to the collector substation located in East Grove Township. Big Sky will install a 34.5kV underground power collection system between the pad mount transformers and a collector substation. This power collection system will consist of a series of underground cables ranging from 2 to 5 inches in outside diameter. The project substation will be constructed in order to deliver power from the power collection system to the Commonwealth Edison (Com Ed) transmission system. The project substation will receive the power from the power collection system at a voltage of 34.5kV and will step it up to 138kV. The power will then be routed north alongside State Highway 26 for approximately 13 miles where it will then be interconnected into the ComEd 345kV Transmission line at the Lee Energy Center.

In addition to the WTGs and power collection system, the Big Sky Project will construct approximately 35 miles of service roads allowing access to the turbines during and after construction. The service roads will be approximately 15 feet wide and will be constructed of crushed gravel/rock. Two permanent, free-standing meteorological towers will be installed at the project site. These towers will be used for performance testing of the wind turbines to ensure that they meet the manufacturers' guarantees. Each tower will stand approximately 263 feet tall. Two temporary, guyed-wired meteorological towers will also be installed for three to six months during construction to calibrate the permanent towers.

In addition, Big Sky will construct an operation and maintenance building somewhere within the project area. The operations and maintenance building will consist of a shed type metal structure that will house a supervisory control and data acquisition ("SCADA") system that records wind speed, direction, power production and other pertinent information along with office space and sleeping quarters for workers. Big Sky will work with the County Health Departments to ensure that the building is up to code.

Action Area

The action area for this Conservation Plan is defined as the area within a one-mile radius of the Ryan Wetland and Sand Prairie INAI Site and includes the construction, operation and maintenance of 22 turbines and their associated access roads and collector lines located within the action area. This is the area in which construction and operation of the Big Sky Windpower Project poses the greatest risk of "incidental take" of the species included in this Conservation Plan.

2. The parties to the conservation plan will, to the maximum extent practicable, minimize and mitigate the impact caused by the taking.

I. Habitat Requirements/Species Status:

A. Regal Fritillary

Habitat Requirements

The regal fritillary is adapted to a number of habitats, including sand prairies, mesic prairies, old field grasslands, meadows, railroad rights-of-way and marshy areas with grasslands. The species has the ability to disperse to other suitable habitats at considerable distances. Frequently, the butterflies are found near woodlands in these same areas. Although it tolerates a variety of landscapes, at least three conditions are mandatory for regal fritillary's continued existence:

Populations of this species are extremely localized throughout the landscape, and occur in a small number of sites in Illinois. Populations can vary dramatically from year to year. These factors, combined with the habitat conditions noted above, make the species susceptible to extirpation from a wide range of factors, including extreme weather events, disease, an abundance of predators, land management decisions, collection or inadvertent takings of the species, vehicular traffic, urban growth or development that destroys habitat, demographic stochasticity (chance events in the reproduction of the species, such as a dearth of females during a given brood), and genetic deterioration (loss of genetic variability, leading to reduced fertility).

Species Status in the Action Area

The United States Fish and Wildlife Service lists this species as a species of concern; The Nature Conservancy's Global Rank for this species is G3 – very rare or local throughout its range or found locally in a restricted range (21 to 100 occurrences) (NatureServe, 2006). In Illinois, the regal fritillary has historically been recorded in more than two dozen counties, but today the species is believed to be confined to perhaps eight counties and is currently listed as threatened in the state (Illinois Endangered Species Protection Board, 2006).

Within the action area, the regal fritillary has been recorded at the Ryan Wetland and Sand Prairie INAI Site (Illinois Natural Heritage Database, 2006). No regal fritillary records are found in the Illinois Natural History Survey insect collection for Lee or Bureau Counties.

B. Blanding's Turtle

Habitat Requirements

Blanding's turtles most commonly inhabit areas with clean, shallow, slow-moving water with silty or organic substrates and abundant aquatic vegetation (Ernst et al., 1994). In Wisconsin, Ross and Anderson (1990) reported that Blanding's turtles spend more time in marshes than in ponds, and that ponds with sand bottoms and no aquatic vegetation are rarely used. In addition, they found that wetlands covered by cattail (*Typha*) mats are not used either, but areas cleared of cattails by muskrats are used.

Species Status in the Action Area

Blanding's turtles are listed as threatened by the State of Illinois (Illinois Endangered Species Protection Board, 2006) primarily due to habitat destruction. The turtles are relatively common in appropriate habitat from the Illinois River northward (Phillips et al., 1999). Within the action area, Blanding's turtles have been recorded at the Ryan Wetland and Sand Prairie INAI Site (Illinois Natural Heritage Database, 2006). Phillips et al. (1999) report a post 1980 photographic record of Blanding's turtles in Lee County and no records for Bureau County. No records are found in the Illinois Natural History Survey reptile and amphibian collection for the Blanding's turtle in Lee or Bureau Counties.

C. Illinois Mud Turtle

Habitat Requirements

The Illinois mud turtle is fossorial and prefers a sand prairie or open sand savanna habitat and avoids areas with dense forest (Christiansen et al., 1985; Ernst et al., 1994; Phillips et al., 1999). Habitats with soils of nearly pure sand are required. In Iowa, radio-telemetry has shown that all habitats used by Illinois mud turtles are 238 – 1,475 feet from water in areas of sparse herbaceous cover in elevated sandy dunes (Christiansen et al., 1985).

Aquatic habitats in Illinois include temporary to permanent ponds and backwaters of rivers (Phillips et al., 1999). The turtles spend time in fishless ponds from mid May through June where feeding and breeding occur. The turtles hibernate and aestivate for the majority of the remainder of the year buried in the sand, with a short active period occurring in September or October in some years. Fish, crustaceans, insects and plant material make up the highest percentage of the diet (Christiansen et al., 1985). Females lay 3-7 eggs in a shallow burrow in late June through early July (Phillips et al., 1999).

Species Status in the Action Area

In Illinois, the Illinois mud turtle is known historically from only 14 locations within five counties (Illinois Natural Heritage Database, 2006). Most populations were apparently always small and the species has disappeared from several localities since the 1950's (Ernst et al., 1994) and much of its original habitat along the Green, Illinois and Mississippi rivers has been destroyed (Phillips et al., 1999). The species is currently listed as endangered in Illinois (Illinois Endangered Species Protection Board, 2006).

The Illinois mud turtle is not known to occur within the action area; however, the species was reported in Lee County prior to 1980 (Phillips et al., 1999). The Illinois Natural History Survey reptile and amphibian collection contains one record for the Illinois mud turtle in Lee County for a specimen collected in 1927 and no records of the turtle in Bureau County. The NHI database has no records of Illinois mud turtles within two miles of the Big Sky Windpower project area (Illinois Natural Heritage Database, 2006).

D. Western Hognose Snake

Habitat Requirements

The western hognose is a prairie or savanna species, preferring grasslands with well drained sandy or gravelly soils for burrowing (Ernst and Ernst, 2003). In Illinois, it is most often observed crossing sandy roads in brushy or weedy sand prairie remnants (Phillips et al., 1999). When frightened, the snake will widen its neck, hiss , and sometimes strike, then roll onto its back and feign death. The snakes mate in the spring and lays eggs in July. The 8-10 young per clutch hatch in August or September. The diet of the western hognose includes toads and other amphibians, reptiles and their eggs, birds, and small mammals, and the species is not as dependant on toads as the related eastern hognose snake (*Heterodon platyrhinos*) (Phillips et al., 1999; Ernst and Ernst, 2003).

Species Status in the Action Area

In Illinois, the western hognose snake is known historically from only 21 locations within 10 counties (Illinois Natural Heritage Database, 2006) and is currently listed as threatened (Illinois Endangered Species Protection Board, 2006). The western hognose snake is not known to occur within the action area. Phillips et al. (1999) report a post-1980 vouchered specimen from Lee County and no specimens for Bureau County. The Illinois Natural History Survey reptile and amphibian collection contains one record for the western hognose snake in Lee County for a specimen collected in 1929 and no records of the snake in Bureau County. The NHI database has no records of western hognose snakes within two miles of the Big Sky Windpower project area (Illinois Natural Heritage Database, 2006).

II. On-site Habitat Evaluation:

A. Regal Fritillary

Two areas of potential habitat for the regal fritillary were found within the action area. The first is the Ryan Wetland and Sand Prairie INAI Site where the regal fritillary has been previously recorded. The site consists of a wetland – sand prairie complex dominated by big bluestem (*Andropogon gerardii*), switchgrass (*Panicum virgatum*) and little bluestem (*Schizachyrium scoparium*). Potential nectar sources were not observed on the day of the site visit due to the timing of the fieldwork; however, it is anticipated that potential nectar sources are present during the butterfly's active season. The Ryan Wetland and Sand Prairie rates as high quality regal fritillary habitat.

A second area of potential habitat is located approximately 0.75 mile southwest of the Ryan Wetland and Sand Prairie INAI Site in the vicinity of proposed Turbines 78 and 81. An existing dirt access road runs south from St. Mary's Road toward proposed Turbine 81 and then continues south-southeast toward proposed Turbine 78. Habitat on the property consists of dogwood (*Cornus* sp.) dominated scrub-shrub, a red pine (*Pinus resinosa*) planting, scattered old field dominated by several grasses and forbs, and upland deciduous forest. A limited number of potential nectar sources, primarily thistles (*Cirsium* sp.) were observed along the existing access road. The area is surrounded on all sides by cropland. The scrub-shrub and old field areas, along with the edges of the existing access road are considered to be low quality/marginal regal fritillary habitat, due primarily to the high percentage of trees and shrubs, which limit the suitability of the area. The existing access road bisects this low-quality habitat that could conceivably support a population of regal fritillaries. o population of this species is known to exist at this location, and that at the time of the site visit, it was not possible to determine whether an extant population does exist. No other areas of suitable regal fritillary habitat were found within the action area.

B. Blanding's Turtle

Within the action area, only the Ryan Wetland and Sand Prairie INAI Site, where the Blanding's turtle has previously been recorded, contains suitable habitat for the turtle. Several wetlands with adjacent sandy slopes suitable for nesting are found at the Ryan Wetland and Sand Prairie site. No other shallow marsh or other suitable wetland habitat is located within the action area. Several farm ponds are located within and adjacent to the action area; however, Blanding's turtles rarely use farm ponds (Christiansen and Bailey, 1988).

A small number of emergent wetlands are located within the project area, but outside of the action area. Although Blanding's turtles are known to use multiple wetlands throughout a year, and in some cases travel large distances between wetlands, these wetlands are too widely distributed and isolated from other suitable habitat, including the Ryan Wetland and Sand Prairie, to make them suitable for Blanding's turtle use.

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C. Illinois Mud Turtle and Western Hognose Snake

Both the Illinois mud turtle and the western hognose snake are dependant on soils of nearly pure sand, and for the mud turtle, these soils must be associated with shallow wetlands (Christiansen et al., 1985; Phillips et al., 1999; Ernst and Ernst, 2003). Soil types and wetland locations were overlaid on aerial photographs prior to the fieldwork in an effort to locate potential habitat for the Illinois mud turtle and western hognose snake. Areas within the project limits mapped as having sandy soils in close proximity to wetlands were investigated during the site visit. No suitable habitat for either the Illinois mud turtle or the western hognose snake is found within the Big Sky Windpower project limits. From a habitat suitability standpoint, the Ryan Wetland and Sand Prairie INAI Site may contain suitable habitat for both species; however neither species has been recorded at the site and no evidence of an extant population at the site exists.

3. The parties to the conservation plan will ensure that adequate funding for the conservation plan will be provided:

In an official correspondence to the Department dated 3 January 2007, Big Sky Wind, LLC verified that adequate funding exists to support and implement all (mitigation) activities described in the official Conservation Plan. This correspondence states that during site development, and continuing through routine monitoring, Big Sky Wind, LLC will provide all of the necessary funding for the implementation of the taking minimization measures.

4. Based on the best available scientific data, the Department has determined that the taking will not reduce the likelihood of the survival or recovery of the endangered species or threatened species in the wild in Illinois, the biotic community of which the species is a part, or the habitat essential to the species' existence in Illinois:

Prior to the field investigation, several data sources were consulted to identify areas of potential habitat for each of the four target species included in this Conservation Plan. These included:

*USGS 1:24,000 Scale Topographic Maps
*Recent Aerial Photography
*U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) Maps
*Natural Resources Conservation Service Soils Data for Lee and Bureau Counties

A field survey for potential habitat for each of the four target species was conducted by NRC biologists on November 20, 2006. Windshield and walking surveys of the entire Big Sky Windpower project area, with particular emphasis on the action area, were conducted to field locate and map any potential habitat for these species that may occur in these areas. No intensive searches or trapping for the butterfly or any of the reptiles were conducted as part of this habitat assessment.

A. Regal Fritillary

The Big Sky Windpower Project is **Not Likely to Adversely Affect the Regal Fritillary** for the following reasons:

*Essential regal fritillary habitat within the Ryan Wetland and Sand Prairie INAI Site will not be impacted.

*The closest proposed turbine location to known regal fritillary habitat within the Ryan Wetland and Sand Prairie INAI Site is Turbine 86 at 0.26 mile.

*Natural buffers, including woods, are present and help confine the butterfly to its known habitat.

*0.7 acre of potential low quality/marginal regal fritillary habitat located approximately 0.75 – 1.0 mile south of the Ryan Wetland and Sand Prairie will be permanently impacted as a result of construction of Turbines 78 and 81 and their and associated connectors and access roads; however, no significant loss of eggs, larvae or egg laying habitat is expected to occur.

*Regal Fritillaries typically fly at a height of 2 – 5 feet above ground, which is lower than the expected lowest point of a turbine blade; therefore, mortality during operation of the turbines is not expected to occur.

*A low risk of "incidental take" as a result vehicular mortality does exist. However, in the event that a regal fritillary should fly out of the known habitat, the likelihood of it encountering either construction or maintenance vehicles is more than likely remote. Further, it is anticipated that construction vehicles on access roads will not be traveling at a velocity sufficient to result in an accidental taking, since this species has the ability to evade slow-moving vehicles in such encounters.

*The overall quantity or quality of habitat should not be diminished on a scale that results in jeopardy to the species, because of the complete avoidance of essential habitat located on the Ryan Wetland and Sand Prairie site and minimal impact to low quality/marginal habitat south of the Ryan Wetland and Sand Prairie site.

B. Blanding's Turtle

The Big Sky Windpower Project is **Not Likely to Adversely Affect the Blanding's Turtle** for the following reasons:

*Essential Blanding's turtle habitat within the Ryan Wetland and Sand Prairie INAI Site will not be impacted.

*The closest proposed turbine location to known Blanding's turtle habitat within the Ryan Wetland and Sand Prairie INAI Site is Turbine 84 at 0.4 mile.

*No loss of existing Blanding's turtle habitat will occur as a result of construction of the turbines and associated connectors and access roads.

*Turbines 84, 86 and 87 will be located in existing cropfields south of the Ryan Wetland and Sand Prairie. While Blanding' s turtles will at times use cropfields for nesting, the sites they typically choose are close field edges and in sandy loam or sand soils. The proposed locations of Turbines 84, 86 and 87 are near the center of the fields, with the closest 0.4 mile from suitable summer habitat located in the Ryan Wetland and Sand Prairie. Soils in the fields at the proposed turbine locations are mapped as:

Turbine 84 – Dickinson Sandy Loam

Turbine 86 – Muscatune Silt Loam

Turbine 87 – Osco Silt Loam

Sparta Loamy Sand (88B2) is present in all of the fields adjacent to the Ryan Wetland and Sand Prairie. In addition, areas of Oakville Fine Sand (741D3) and Coloma Sand (689B) are found on uncropped land between Turbines 84 and 86. If Blanding's or other turtles attempted to nest in these fields, it is likely that these areas would be chosen and not the location of the proposed turbines.

*No suitable Blanding's turtle habitat was found within the impact area south of the Ryan Wetland and Sand Prairie; therefore, it is not anticipated that Blanding's turtles would be moving through the construction area in attempt to move between habitat patches.

*A low risk of "incidental take" as a result vehicular mortality does exist, primarily on Morgan Road adjacent to the Ryan Wetland and Sand Prairie. However, the risk of vehicular mortality resulting from the proposed project is not expected to significantly increase over the current conditions. In addition, construction and maintenance personnel will be informed of the possible presence of the turtle in the area and asked to avoid collisions with all turtles if possible, which will further reduce the risk of an "incidental take".

*The overall quantity or quality of habitat should not be diminished on a scale that results in jeopardy to the species, because of the complete avoidance of essential habitat located on the Ryan Wetland and Sand Prairie site.

C. Illinois Mud Turtle

The Big Sky Windpower Project will **Most Likely have No Effect on the Illinois Mud Turtle** for the following reasons:

*No extant populations are known to exist within two miles of the Big Sky Windpower project limits.

*Illinois mud turtles have not been recorded in the Lee County since 1972.

*No suitable habitat for the Illinois mud turtle was found within the action area.

*Construction and maintenance personnel will be informed of the possible presence of the turtle in the area and asked to avoid collisions with all turtles if possible, which will further reduce the risk of an "incidental take".

D. Western Hognose Snake

The Big Sky Windpower Project will **Most Likely have No Effect on the Western Hognose Snake** for the following reasons:

*No extant populations are known to exist within two miles of the Big Sky Windpower project limits.

*No suitable habitat for the western hognose snake was found within the action area.

*Construction and maintenance personnel will be informed of the possible presence of the snake in the area and asked to avoid collisions with all snakes if possible, which will further reduce the risk of an "incidental take".

5. Any measures required under Section 5.5 of the Illinois Endangered Species Protection Act [520 ILCS 10/5.5 - 17 IL. Adm. Code Part 1080.40(b)], will be performed:

Additional measures are listed below under "Authorization." This authorization is, by definition, subject to those terms and conditions and official Big Sky Wind, LLC signature(s) on this authorization indicates their commitment to performing those measures.

Although the actual risk of a take is very low as a result of the proposed project, the potential for an "incidental take" of the regal fritillary, Blanding's turtle, Illinois mud turtle and western hognose snake does nevertheless exist. This take may occur through vehicular traffic on St. Mary's Road and Morgan Road in the vicinity of the Ryan Wetland and Sand Prairie INAI Site and the proposed access road for Turbines 78 and 81. While the risk of an "incidental take" of these species by vehicular traffic does exist, the risk resulting from the proposed project is most likely not significantly increased over the current conditions. No direct construction related mortality or mortality through general degradation of the surrounding habitat is expected to occur within the breeding and/or non-breeding portions of the respective species life cycles.

PROBABLE EFFECTS OF THE PROPOSED ACTION

Regal Fritillary

The placement of proposed Turbines 78 and 81 and their associated connectors and access roads will impact a total of approximately 2.4 acres of potential low quality /marginal regal fritillary habitat, of which 1.7 acres will be temporary impacts. Therefore, the project will result in the loss of 0.7 acre of potential low quality/marginal regal fritillary habitat located approximately 0.75 – 1.0 mile south of the Ryan Wetland and Sand Prairie.

The majority of the impacted area will be along an existing dirt access road, which will be upgraded to a 16 foot wide gravel access road as part of the project. The upgraded access road will be located primarily along one edge of the potential regal fritillary habitat, thereby reducing habitat fragmentation. Temporary impact areas outside of the final 16 foot drivable portion of the road will be revegetated. It is anticipated that the connector line will be trenched in and will also be revegetated. If additional area is required for use as a crane path, these areas would also be temporarily impacted and would be revegetated.

Due to the small amount of permanent impact and the low quality of the area, no significant loss of eggs, larvae or egg laying habitat is expected to occur. Therefore, we anticipate no adverse impact on the regal fritillary as a result of construction of Turbines 78 and 81 and their associated connectors and access roads. No impacts to regal fritillary habitat at the Ryan Wetland and Sand Prairie INAI Site will most likely occur.

Blanding's Turtle

Within the action area, suitable Blanding's turtle habitat was only found at the Ryan Wetland and Sand Prairie. NWI maps indicate several wetlands on the property containing the low quality regal fritillary habitat to the south of the Ryan Wetland and Sand Prairie. Only the portion of that property that could be viewed from St. Mary's Road or would be impacted by the project was investigated the day of the fieldwork and no suitable wetlands for Blanding's turtles were observed. If suitable wetlands are located in the interior of the property, they would not be impacted by the project. In addition, no impacts to the Ryan Wetland and Sand Prairie will occur as a result of the proposed project. Therefore, no impacts to Blanding's turtle habitat will most likely occur.

Illinois Mud Turtle and Western Hognose Snake

No habitat for the Illinois mud turtle or western hognose snake is found within the action area; therefore, no impacts to these species will most likely occur as a result of the proposed project.

6. The public has received notice of the application and has had the opportunity to comment before the Department made any decision regarding the application:

Big Sky Wind, LLC prepared a conservation plan for the Big Sky Windpower Project - NRC Project No. 06-319-01 as described by the Illinois Endangered Species Protection Act (520 ILCS 10/5.5). That plan and Big Sky Wind, LLC's request for authorization for incidental take of Regal fritillary butterfly, Blanding's turtle, Illinois mud turtle, and Western hognose snake in Bureau and Lee Counties, Illinois were received by the Illinois Department of Natural Resources (Department) on 5 January 2006. Public notice of Big Sky Wind, LLC's request for authorization of incidental take of these State listed species was published in the Edwardsville Intelligencer (Official State newspaper) and the Dixon Telegraph (Lee County) and Bureau County Republican on January 30, 2007, as well as on February 6, 2007 and February 15, 2007. Public comments on Big Sky Wind, LLC's conservation plan were accepted by the Department until March 15, 2007. No comments were received by the public during the period of January 30, 2007 through March 15, 2007.

Authorization

It is the determination of the Department that the measures to be implemented by Big Sky Wind, LLC (BSW) will adequately minimize and mitigate for the anticipated taking (disturbance/harassment) of a small number of the Regal fritillary butterfly, Blanding's turtle, Illinois mud turtle, and Western hognose snakes due to the construction of the Big Sky Windpower Project, in Bureau and Lee Counties, Illinois. Further, it is our opinion that the take (disturbance/harassment) authorized herein would not diminish the likelihood of the survival of either these aforementioned species in the wild within the State of Illinois, the biotic community of which the species is a part, or the habitat essential to the species' existence in Illinois.

Pursuant to Section 5.5 of the Illinois Endangered Species Protection Act [520 ILCS 10/5.5 - 17 IL. Adm. Code Part 1080.40(b)], this authorization is issued subject to the following additional terms and conditions:

1. This authorization is effective upon signature of the Department and shall remain in effect for a period of 10 (ten) years, unless terminated pursuant to Section 5.5. of the Illinois Endangered Species Protection Act [520 ILCS 10/5.5 - 17 IL. Adm. Code Part 1080.80].

2. The following measures shall be implemented with regards to the Big Sky Windpower Project: Measures have already been taken during the design phase of the project to minimize potential impacts to the species covered by this Conservation Plan and the essential regal fritillary butterfly and Blanding 's turtle habitat located within the Ryan Wetland and Sand Prairie INAI Site. Based on concerns expressed by the IDNR and Lee County Soil and Water District over the placement of some of the turbines within 0.25 mile of the Ryan Wetland and Sand Prairie INAI Site, BSW agreed to eliminate five wind turbines from the area of concern and agreed to relocate four additional turbines so that no turbines are closer than 0.25 mile of the of the Ryan Wetland and Sand Prairie INAI Site. As a result of these design changes, the IDNR modified its biological opinion and concluded that the project as now designed in not likely to adversely affect the Ryan Wetland and Sand Prairie INAI Site or essential habitat for the regal fritillary butterfly and Blanding's turtle found within the site.

*Placement of silt fence around the turbine foundation construction site at Turbines 84, 86 and 87 to exclude turtles and other animals from the construction area.

*Providing a qualified biologist with experience with the target species to serve as an on-site Environmental Monitor responsible for instructing construction personnel on the proper placement of silt fences at Turbines 84, 86 and 87, monitoring the silt fences, monitoring ground disturbance activities, such as road building, turbine pad excavation, and trenching for power collection lines, and coordinating with the IDNR in the event of an observation or "incidental take" of one the target species.

*Informing construction personnel of the possible presence of the rare turtles and snake in the project area and asking them to watch for any turtles or snakes within the construction zone or on adjacent roads. If turtles or snakes of any species are found in the construction area, they could simply be picked up and moved to a safer location outside of the construction area. If observed on public roads, attempts shall be made to avoid running the animal over.

*Temporary impact areas on nonagricultural land associated with Turbines 78 and 81 shall be reseeded with a mix of native grasses and forbs including bird's-foot violet (*Viola pedata*), the preferred host plant of regal fritillary larvae.

*In the event of a documented "incidental take" of any of the species covered by this Conservation Plan as a direct result of the construction or operation of the Big Sky Windpower project, Big Sky Wind, LLC (BSW) shall mitigate for the taking by hiring a qualified biologist with experience with the affected species to conduct a preliminary population survey of the affected species in the area of the taking. The purpose of the survey would be to gain a better understanding of the size, location and movement of the population of the affected species in an effort to avoid any future takings. The final results of the survey shall be provided to the IDNR (Attn: Joseph Kath) within 60 days of completion.

3. The following Monitoring Measures shall be implemented with regards to the Big Sky Windpower Project:

Monitoring shall consist of routine observation of species and reporting of road kills by BSW and/or construction staff in conjunction with their normal duties. The IDNR shall be notified of any regal fritillary, Blanding's turtle, Illinois mud turtle or western hognose snake observations or road kills in the project area.

4. The following Party Responsibilities shall be in effect with regards to the Big Sky Windpower Project, in Bureau and Lee Counties, Illinois.

Big Sky Wind, LLC (BSW) will be responsible for overseeing all minimization, monitoring and mitigation efforts identified within the Conservation Plan. BSW will be responsible for planning, contract execution and construction supervision for the entire project.

5. The effective period of this authorization may be altered by mutual agreement between Big Sky Wind, LLC and the Department.

6. This authorization may be revoked pursuant to Section 5.5 of the Act if the Department finds that Big Sky Wind, LLC has failed to comply with any of these terms and conditions or has been responsible for the take of any State Listed Species beyond that which is incidental to the construction of the Big Sky Windpower Project, in Bureau and Lee Counties, Illinois.

7. The Big Sky Wind, LLC official(s) identified below is/are authorized to execute this agreement. Execution by an official from any one of these organizations indicates acceptance of all terms and conditions described in this document.

For the IL. Department of Natural Resources

Mike Conlin /JC

Mike Conlin, Acting Director
Office of Resource Conservation

July 18, 2007

Date Signed

For Big Sky Wind, LLC

Signature

Stefan A. Noe, Manager

Please print name and official title

July 17, 2007

Date Signed

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Authorization for Incidental Take and Implementing Agreement - 2010 Amendment #1 (Ornate Box Turtle)

Pursuant to the Illinois Endangered Species Protection Act (520 ILCS 10/5.5), on behalf of Big Sky Wind, LLC, authorization for the incidental take of the State listed ornate box turtle (OBT) in Bureau and Lee Counties, Illinois [associated with the Big Sky Windpower Project - NRC Project No. 06-319-01; as described/shown in the conservation plan received by the Department on 5 January 2006 - *Conservation Plan Amendment #1 received on 18 January 2010*] is hereby granted, subject to the terms and conditions described in the attached Authorization and Implementing Agreement. The Illinois Department of Natural Resources has determined that this authorized take is incidental to the construction of the Big Sky Windpower Project-Amendment #1, in Bureau and Lee Counties, Illinois.

Procedural History

Big Sky Wind, LLC prepared an *Amended* conservation plan for the Big Sky Windpower Project - NRC Project No. 06-319-01 as described by the Illinois Endangered Species Protection Act (520 ILCS 10/5.5). That amended plan and Big Sky Wind, LLC's request for authorization for incidental take of the OBT in Bureau and Lee Counties, Illinois were received by the Illinois Department of Natural Resources (Department) on 18 January 2010. A public comment period was *not* required for this Amendment.

The Big Sky Windpower Project is a state-of-the art wind energy project located in Lee and Bureau Counties, Illinois. The wind project has a nameplate capacity of 240 megawatts and consists of up to one hundred and twenty five 2.1 MW wind turbine generators (WTGs). The WTGs are situated on over 13,000 acres in May and East Grove Townships, Lee County and Ohio and Walnut Townships, Bureau County, but the entire project foot print will only occupy a total of approximately 100 acres. The entire output of the windpower project will be enough to power approximately 90,000 average households.

The project area consists of flat to rolling topography in a highly agricultural setting. Land use on well over 90 percent of the land within the overall Big Sky Windpower Project limits is farmstead or row crop production. A limited number of scattered and fragmented woodlands, wetlands and pasture/old field habitats are found within the project limits.

Ornate Box Turtle Conservation Plan Amendment #1 - Background Information:

Authorization for the incidental take of the state listed Regal Fritillary Butterfly, Blanding's Turtle, Illinois Mud Turtle and Western Hognose Snake in Lee and Bureau counties, Illinois associated with the development of the Big Sky Wind Farm was granted by the Illinois Department of Natural Resources (IDNR) in June 2007.

Illinois
Department of
Natural Resources
One Natural Resources Way • Springfield, Illinois 62702-1271
http://dnr.state.il.us
Rod R. Blagojevich, Governor

April 19, 2010

Mr. Terry VanDeWalle
Natural Resources Consulting (NRC), Inc.
2300 Swan Lake Blvd., Suite 200
Independence, Iowa 50644

RE: *Incidental Take Authorization - Conservation Plan Review - Amendment #1 (Ornate box turtle)*
Big Sky Wind, LLC,- Lee and Bureau Counties, Illinois
NRC Project No. 06-319-01

Dear Mr. VanDeWalle:

Pursuant to the Illinois Endangered Species Protection Act (520 ILCS 10/5.5), on behalf of Big Sky Wind, LLC, authorization for the incidental take of the State listed Ornate Box Turtle in Bureau and Lee Counties, Illinois [associated with the Big Sky Windpower Project - NRC Project No. 06-319-01 - formal Amendment #1] is hereby granted, subject to the terms and conditions described in the attached Authorization and Implementing Agreement. The Illinois Department of Natural Resources has determined that this authorized take is incidental to the construction of the Big Sky Windpower Project, in Bureau and Lee Counties, Illinois.

Please have an authorized Big Sky Wind, LLC Official(s) sign the last page of both copies of the Amendment #1-Authorization and Implementing Agreement and return **both** copies to my the attention. Upon receipt, I will have the agreements signed and return one (1) fully executed copy to you for your official records. This authorization shall be effective once signed by the Department.

Thank you for your cooperation and assistance during the incidental take preparation and review process. Please do not hesitate to contact our office at (217)782-6384 with any questions or comments you may have regarding this authorization agreement.

Sincerely,

Joseph A. Kath
Endangered Species Manager
IDNR-Office of Resource Conservation

Received
JUN 04 2010
Wildlife Division

Enclosures

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On August 4, 2009, Edison Mission received e-mail correspondence from Keith Shank (IDNR Impact Assessment Section) indicating that the Illinois Threatened and Endangered Species list was undergoing revision and that 14 species would be removed from the list and 14 species would be added to the list, including the ornate box turtle (*Terrapene ornata*). Mr. Shank also indicated that ornate box turtles (OBT) had recently been documented at the Ryan Wetland and Sand Prairie Land and Water Reserve, and from a road-kill at an unidentified location on Maytown Road north of the Ryan Wetland and Sand Prairie INAI Site. Mr. Shank suggested the Big Sky Wind Farm obtain an incidental take authorization (ITA) for ornate box turtles from the IDNR.

The ornate box turtle (OBT) was listed as threatened by the State of Illinois on October 30, 2009 (Illinois Endangered Species Protection Board, 2009) primarily based on recent records indicating that the species is now very rarely encountered in areas where it was formerly common (Illinois Endangered Species Protection Board, 2008).

Therefore, the purpose of the Big Sky ITA Amendment #1 was to review the potential effects of the Big Sky Wind Farm Project in sufficient detail to determine to what extent the project may result in an "incidental take" of the state-threatened <u>ornate box turtle.</u>

<u>Compliance with the Endangered Species Protection Act</u>

The Illinois Endangered Species Protection Act includes six (6) criteria which must be met for the authorization of incidental take of an endangered or threatened species. These criteria and the Department's determination for each criteria are listed below.

1. The taking will not be the purpose of, but will only be incidental to, the carrying out of an otherwise lawful activity:

The Big Sky Windpower Project is a state-of-the art wind energy project located in Lee and Bureau Counties, Illinois. The wind project has a nameplate capacity of 240 megawatts and consists of up to one hundred and twenty five 2.1 MW wind turbine generators (WTGs). The WTGs are situated on over 13,000 acres in May and East Grove Townships, Lee County and Ohio and Walnut Townships, Bureau County, but the entire project foot print will only occupy a total of approximately 100 acres. The entire output of the windpower project will be enough to power approximately 90,000 average households.

Each WTG is manufactured off site and consists of a 263-foot tower, a nacelle that houses the generator and gearbox, and a three-blade rotor assembly, all of which is shipped to the project location and assembled on-site. From the base of the tower to the tip of the blade, the total height of the WTG is 410 feet. One hundred and twenty-five steel reinforced concrete foundations will be constructed in Lee and Bureau Counties to anchor each WTG. A pad mount transformer will be installed at the base of each WTG and will collect electricity generated by each turbine through cables routed down the inside of the tower. The purpose of the pad mount transformer is to step the voltage up from 600 volts to 34.5 kilovolts (kV) to efficiently transmit power to the collector substation located in East Grove Township. Big Sky will install a 34.5kV underground power collection system between the pad mount transformers and a collector substation.

This power collection system will consist of a series of underground cables ranging from 2 to 5 inches in outside diameter. The project substation will be constructed in order to deliver power from the power collection system to the Commonwealth Edison (Com Ed) transmission system. The project substation will receive the power from the power collection system at a voltage of 34.5kV and will step it up to 138kV. The power will then be routed north alongside State Highway 26 for approximately 13 miles where it will then be interconnected into the ComEd 345kV Transmission line at the Lee Energy Center.

In addition to the WTGs and power collection system, the Big Sky Project will construct approximately 35 miles of service roads allowing access to the turbines during and after construction. The service roads will be approximately 15 feet wide and will be constructed of crushed gravel/rock. Two permanent, free-standing meteorological towers will be installed at the project site. These towers will be used for performance testing of the wind turbines to ensure that they meet the manufacturers' guarantees. Each tower will stand approximately 263 feet tall. Two temporary, guyed-wired meteorological towers will also be installed for three to six months during construction to calibrate the permanent towers.

In addition, Big Sky will construct an operation and maintenance building somewhere within the project area. The operations and maintenance building will consist of a shed type metal structure that will house a supervisory control and data acquisition ("SCADA") system that records wind speed, direction, power production and other pertinent information along with office space and sleeping quarters for workers. Big Sky will work with the County Health Departments to ensure that the building is up to code.

Action Area - Ornate Box Turtle Conservation Plan /ITA Amendment #1:

The action area for this Conservation Plan (ITA Amendment #1 - 2010) is defined as the area within a one-mile radius of the Ryan Wetland and Sand Prairie INAI Site and includes the construction, operation and maintenance of 22 turbines and their associated access roads and collector lines located within the action area. This is the area in which construction and operation of the Big Sky Windpower Project poses the greatest risk of "incidental take" of the species included in this Conservation Plan (ITA Amendment #1).

2. The parties to the OBT conservation plan will, to the maximum extent practicable, minimize and mitigate the impact caused by the taking.

I. Habitat Requirements/Species Status:

Ornate Box Turtle

Species Description:

Ornate box turtles are small terrestrial turtles with a high-domed, round or oval carapace with a dark ground color and yellow lines on each scale that radiate downward and forward. The strongly hinged plastron is similarly marked and may be closed completely. Males may be distinguished from females by the presence of an inwardly facing first toe on the hind legs, a concave plastron and red eyes (Ernst et al., 1994).

Habitat Requirements:

Ornate box turtles are primarily a prairie species, but also inhabit pastures, open woodland areas and agricultural fields. The turtles are diurnal and fully terrestrial. The daily activity cycle, as described by Ernst et al. (1994), consists of emerging from their night burrow, or forms, and other places of concealment soon after dawn and basking for a short time before beginning to forage. Most days, foraging stops by late morning and the turtles seek shelter in day burrows or other shady spots, where they remain until mid- or late afternoon when they begin to forage again. Legler (1960) found the home range of an individual turtle to be approximately 2 ha (5 ac).

Ornate box turtles are restricted to areas with soils that allow for easy burrowing. Legler (1960) reported that *T. ornata* prefers bare, well-drained, sloping areas protected from erosion by up-slope clumps of rocks or sod for nesting. Preferred hibernation sites are locations well suited to basking and burrowing as well as protected from the wind (Ernst et al., 1994). The turtles eat a variety of plants and berries, with insects, such as beetles, caterpillars and grasshoppers, accounting for approximately 90 percent of their diet (Ernst et al., 1994).

II. On-site Habitat Evaluation:

Ornate Box Turtle

Species Status in the Action Area:

Phillips et al. (1999) consider ornate box turtles to be uncommon to rare over much of their Illinois range. Pre-1980 vouchered specimens are known from Bureau County and post-1980 vouchered specimens are known from Lee County (Phillips et al., 1999). Recent records indicate that the species is now very rarely encountered in areas where it was formerly common (Illinois Endangered Species Protection Board, 2008).

Within the action area, ornate box turtles have been recorded at the Ryan Wetland and Sand Prairie Land and Water Reserve and at an unidentified location along Maytown Road north of the Ryan Wetland and Sand Prairie Land and Water Reserve (Keith Shank, personal communication, 2009).

The action area consists of flat to rolling topography in a highly agricultural setting. Land use on well over 90% of the land within the action area is farmstead or row crop production. A limited number of scattered and fragmented woodlands, wetlands and pasture/old-field habitats are found within the action area.

3. The parties to the conservation plan will ensure that adequate funding for the conservation plan will be provided:

In an official correspondence to the Department dated 3 January 2007, Big Sky Wind, LLC verified that adequate funding exists to support and implement all (mitigation) activities described in the official Conservation Plan as well as any subsequent Amendments, including the 2010 ITA Amendment #1 for the OBT. This correspondence states that during site development, and continuing through routine monitoring, Big Sky Wind, LLC will provide all of the necessary funding for the implementation of the taking minimization measures.

4. Based on the best available scientific data, the Department has determined that the taking will not reduce the likelihood of the survival or recovery of the endangered species or threatened species (specifically the OBT) in the wild in Illinois, the biotic community of which the species is a part, or the habitat essential to the species' existence in Illinois:

With regards to the Ornate Box Turtle:

The action area consists of flat to rolling topography in a highly agricultural setting. Land use on well over 90% of the land within the action area is farmstead or row crop production. A limited number of scattered and fragmented woodlands, wetlands and pasture/old-field habitats are found within the action area.

A. A desktop assessment and field review was used to determine the existence and extent of potential ornate box turtle habitat within the action area. *Assumptions* used in the assessment include(d):

1. Ornate box turtles are restricted to areas of nearly pure sand.

2. Ornate box turtles use open canopy habitats and do not regularly utilize closed canopy forest or purely wetland.

3. Ornate box turtles will use actively cropped farmland at times throughout the year, but non-cropped grassland is preferred over actively cropped areas.

B. The following steps were used for the desktop habitat assessment:

1. Using NRCS soil survey data, map units containing sandy soils were mapped within the action area.

2. Using recent aerial photographs, land cover in areas with sandy soils was determined and the suitability of the habitat was rated as follows:

*Closed Canopy Forest/Woodland or Wetland – Unsuitable; *Active Cropland – Moderately Suitable; and

*Non-cropped Land (e.g., pasture, old-field, open canopy shrub land) – Highly Suitable

C. Areas rated as unsuitable were eliminated from consideration.

D. Land-cover, land use, and soil type were field verified and the habitat maps were revised as necessary to produce the final delineation of suitable habitat.

Overall, a total of 1,467 acres of suitable potential ornate box turtle habitat is found in the action area, of which, 1,259.4 acres were actively cropped in 2009 and 207.9 acres are not cropped. Suitable habitat is found at scattered locations across the action area, primarily in Lee County.

5. Any measures required under Section 5.5 of the Illinois Endangered Species Protection Act [520 ILCS 10/5.5 - 17 IL. Adm. Code Part 1080.40(b)], will be performed:

Additional measures are listed below under "Authorization." This authorization (ITA Amendment #1) is, by definition, subject to those terms and conditions and official Big Sky Wind, LLC signature(s) on this authorization indicates their commitment to performing those measures.

Although the actual risk of a take is most likely very low as a result of the proposed project, the potential for an "incidental take" of ornate box turtle(s) does nevertheless exist. While the risk of an "incidental take" of this species by vehicular traffic does exist, the risk resulting from the proposed project is most likely not significantly increased over the current conditions. No direct construction related mortality or mortality through general degradation of the surrounding habitat is expected to occur within the breeding and/or non-breeding portions of the respective species life cycles.

PROBABLE EFFECTS OF THE PROPOSED ACTION:

Direct Effects on OBT Habitat

The Big Sky Wind Farm project may directly affect the ornate box turtle by reducing the amount of potential habitat within the action area. Approximately 45.9 acres of suitable potential ornate box turtle habitat, consisting of 41.7 acres of cropped land and 4.2 acres of not cropped land, would be affected by the project representing 3.1% of the total suitable potential ornate box turtle habitat within the action area (1,467 acres). No impacts to the Ryan Wetland and Sand Prairie Land and Water Reserve would occur as a result of the project.

Construction of turbine foundations, access roads, collector lines, and crane paths would likely result in the following impacts:

A. Turbine Impacts (1 acre/turbine)

Cropped = 3.77 acres

Not Cropped = 0.50 acre

B. Access Road Impacts (16' Width)

Cropped = 2.29 acres

Not Cropped = 0.16 acre

C. Crane Path Impacts (75' Width)

Cropped = 27.03 acres

Not Cropped = 3.31 acres

D. Collector Line Impacts (50' Width)*

Cropped = 8.56 acres

Not Cropped = 0.18 acre

*Note: Modifications to the layout of the collector line system may be necessary based on field conditions encountered during construction. However, these modifications are not expected to significantly change the impacts.

Permanent Impacts

Permanent loss of potential habitat would likely result from construction of the turbine foundations and access roads. Approximately 6.8 acres of suitable potential ornate box turtle habitat would be permanently lost as a result of the project, representing only 0.5% of the total suitable potential ornate box turtle habitat within the action area (1,467 acres). Of the 6.8 acres of permanent impact, only 0.66 acre would occur in highly suitable habitat (i.e., not cropped areas), with the remainder (6.16 acres) occurring in areas that are actively cultivated.

Temporary Impacts

Impacts resulting from construction of the collector lines and crane paths would likely be temporary. Once construction is complete, these areas shall be restored to the natural contours and non-cropped areas will be revegetated. The Big Sky project would result in approximately 39.08 acres of temporary impact to suitable potential ornate box turtle habitat, of which, 3.49 acres would occur in not cropped areas, with the remainder (35.59 acres) occurring in areas that are actively cultivated.

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Potential for OBT Incidental Take - ITA Authorization Amendment #1 (2010):

Ornate box turtles are currently known to exist at only one (1) location in the action area (Ryan Wetland and Sand Prairie Land and Water Reserve), which would not be directly affected by the project. Therefore, the actual risk of a take is likely very low as a result of the proposed project; however, the potential for an "incidental take" of the ornate box turtle does nevertheless exist from two (2) sources:

1. Vehicular traffic on public roads within the action area, specifically St. Mary's Road and Morgan Road in the vicinity of the Ryan Wetland and Sand Prairie Land and Water Reserve, and on constructed access roads.

2. Excavation activities that unearth hibernating turtles or turtles using day burrows. While the risk of an "incidental take" by vehicular traffic and excavation does exist, it is felt that the risk resulting from the proposed project is likely not significantly increased over the current conditions (i.e., traffic on public roads and farming activities such as plowing and cultivating). Direct construction related mortality or mortality through general degradation of the surrounding habitat is expected to be minimal, if it occurs at all.

CONCLUSIONS AND EFFECTS DETERMINATION

Overall, it is likely that the proposed Big Sky Wind Farm is Not Likely to Adversely Affect the Ornate Box Turtle for the following reasons:

1. The only known/confirmed ornate box turtle population, located within the Ryan Wetland and Sand Prairie Land and Water Reserve will not be impacted.

2. The closest proposed turbine location to confirmed ornate box turtle habitat within the Ryan Wetland and Sand Prairie Land and Water Reserve is Turbine 84 at 0.4 mile. The overall quantity or quality of habitat should not be diminished on a scale that results in jeopardy to the species.

3. Approximately 1,467 acres of suitable potential ornate box turtle habitat is present within the action area, of which, a total of 6.8 acres (0.5%) would likely be permanently impacted by the proposed project and only 0.66 acre (0.04%) of highly suitable habitat would be permanently lost.

4. Approximately 39 acres of suitable potential habitat would be temporarily impacted by the project, all of which will be restored and available for use by the turtles once the project is complete.

5. A relatively low risk of "incidental take" does exist as a result of excavation activities and vehicular mortality, primarily on Morgan Road adjacent to the Ryan Wetland and Sand Prairie Land and Water Reserve. However, the risk of mortality resulting from the proposed project is not expected to significantly increase over the current conditions. In addition, construction and maintenance personnel have been, or shall be, informed of the possible presence of the turtle in the area and asked to avoid collisions with all turtles if possible, which will further reduce the risk of an "incidental take". In addition, a biological monitor will be present during excavation activities to watch for turtles in the construction area and move turtles found out of harm's way.

Authorization

It is the determination of the Department that the measures to be implemented by Big Sky Wind, LLC (BSW) will adequately minimize and mitigate for the anticipated taking (disturbance/harassment) of a small number of ornate box turtles related to the construction of the Big Sky Windpower Project, in Bureau and Lee Counties, Illinois (***ITA - Amendment #1 - 2010***). Further, it is our opinion that the take (disturbance/harassment) authorized herein would not diminish the likelihood of the survival of either this species in the wild within the State of Illinois, the biotic community of which the species is a part, or the habitat essential to the species' existence in Illinois.

Pursuant to Section 5.5 of the Illinois Endangered Species Protection Act [520 ILCS 10/5.5 - 17 IL. Adm. Code Part 1080.40(b)], this authorization is issued subject to the following additional terms and conditions:

1. This specific authorization (ITA Amendment #1 - for the OBT, 2010) is effective upon signature of the Department and shall remain in effect for a period of 10 (ten) years, unless terminated pursuant to Section 5.5. of the Illinois Endangered Species Protection Act [520 ILCS 10/5.5 - 17 IL. Adm. Code Part 1080.80].

2. The following measures shall be implemented with regards to the Big Sky Windpower Project-ITA Amendment #1 for the OBT (2010)Measures have already been taken during the design phase of the project to minimize potential impacts to the ornate box turtle and ornate box turtle habitat located within the Ryan Wetland and Sand Prairie Land and Water Reserve. Based on concerns expressed by the IDNR and Lee County Soil and Water District over the placement of some of the turbines within 0.25 mile of the Ryan Wetland and Sand Prairie INAI Site, in 2006 Big Sky Wind, LLC agreed to eliminate five wind turbines from the area of concern and agreed to relocate four additional turbines so that no turbines are closer than 0.25 mile of the of the Ryan Wetland and Sand Prairie INAI Site. As a result of these design changes, the IDNR modified its biological opinion and concluded that the project as now designed is not likely to adversely affect the Ryan Wetland and Sand Prairie INAI Site. Although originally implemented to protect essential habitat for the regal fritillary butterfly and Blanding's turtle, these modification to the project layout will also protect ornate box turtle habitat found on the Ryan Wetland and Sand Prairie Land and Water Reserve.

Best Management Practices

The following best management practices (BMP), specific to ITA Amendment #1 for the OBT, have been implemented by Big Sky Wind, LLC to avoid or minimize to the greatest extent possible impacts to the ornate box turtle:

Construction Prior to May 1:

*Although ornate box turtle (OBT) habitat does include cropped areas, the turtles are less likely to use actively cropped areas for hibernation. Therefore, excavation may take place prior to May 1, 2010 in areas that have been field verified to have been actively cropped in 2009 without the presence of a biological monitor.

*A biological monitor shall be present during all excavation activities in areas with suitable ornate box turtle habitat that were not cropped (i.e. natural vegetation) in 2009. If turtles are unearthed, the monitor will report the observation to the IDNR.

*For installation of underground collector lines, where trenching is the primary installation method, a biological monitor shall be present during trenching in the event that turtles are unearthed by the trenching activities. If turtles are found, the monitor will report the observation to the IDNR.

Construction Between May 1 and September 30: For construction activities in areas with suitable ornate box turtle habitat during the ornate box turtle's active season (May – September):

*No construction in areas designated as suitable ornate box turtle habitat shall take place until the area has been cleared by a biological monitor experienced with ornate box turtle identification.

*For excavation of turbine pad foundations in areas with suitable ornate box turtle habitat, silt fence shall be installed around the perimeter of the construction area once the initial scraping of the site has occurred to exclude turtles from the construction area. The fencing shall be installed with turn-back wings at each end facing away from the construction area. The silt fence shall be buried six (6) inches in the ground and staked and maintained in an upright position.

*Prior to the initial scraping, a biological monitor, experienced with ornate box turtle identification, shall visually search the area in an attempt to locate turtles within the construction area and re-locate them outside the construction area.

*Once the silt fence is installed, and prior to further excavation activities, a biological monitor, experienced with ornate box turtle identification, shall conduct a final pass through the area inside the silt fence to locate turtles within the isolation area and re-locate them outside the construction area.

*For installation of underground collector lines, where trenching is the primary installation method, a biological monitor, experienced with ornate box turtle identification, shall accompany the collector line installation crew to each location to re-locate turtles found during installation of the collector line. The monitor shall conduct a visual encounter search within the construction corridor immediately ahead of the installation crew to locate turtles within the construction corridor and re-locate them outside the construction area.

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*For construction of crane paths, two options exist: 1) silt fence may be installed along both sides of the crane path prior to April 15, 2010 to exclude turtles from the construction area, or 2) a biological monitor, experienced with ornate box turtle identification, may accompany the construction crew to each location to re-locate turtles found in the construction area. The monitor shall conduct a visual encounter search within the construction corridor immediately ahead of the construction crew to locate turtles within the construction corridor and re-locate them outside the construction area.

*Construction personnel shall be made aware of the possible presence of ornate box turtles in the action area and asked to watch for any turtles within the construction zone or on access roads and adjacent public roadways. If turtles of any species are found in the construction area, they could simply be picked up and moved to a safer location outside of the construction area. If observed on public roads, attempts should be made to avoid running the animal over. Any ornate box turtle observations should immediately be reported to the biological monitor.

*Once a crane path is no longer in use, the area should be de-compacted to restore the loose soil conditions required by the turtles.

*In areas where silt fence is used for exclusion fencing, the fence shall be removed only after all construction and restoration activities in that area have been completed.

3. The following Monitoring Measures shall be implemented with regards to the Big Sky Windpower Project:

The only monitoring proposed is routine observation of species and reporting of road kills by Big Sky Wind, LLC or construction staff in conjunction with their normal duties. The IDNR shall be notified within 48 hours of discovery of any ornate box turtle observations or road kills in the action area.

4. The following Party Responsibilities shall be in effect with regards to the Big Sky Windpower Project, in Bureau and Lee Counties, Illinois:

Big Sky Wind, LLC (BSW) will be responsible for overseeing all minimization, monitoring and mitigation efforts identified within the Conservation Plan - Amendment #1 (OBT). BSW will be responsible for planning, contract execution and construction supervision for the entire project.

5. The effective period of this authorization [specifically for Amendment #1-OBT] may be altered by mutual agreement between Big Sky Wind, LLC and the Department.

6. This authorization [specifically for Amendment #1-OBT] may be revoked pursuant to Section 5.5 of the Act if the Department finds that Big Sky Wind, LLC has failed to comply with any of these terms and conditions or has been responsible for the take of any State Listed Species, including the OBT, beyond that which is incidental to the construction of the Big Sky Windpower Project, in Bureau and Lee Counties, Illinois.

7. The Big Sky Wind, LLC official(s) identified below is/are authorized to execute this agreement (specifically for ITA Amendment #1 - 2010). Execution by an official from any one of these organizations indicates acceptance of all terms and conditions described in this document.

For the IL. Department of Natural Resources

Dr. Jim Herkert, Director
IDNR-Office of Resource Conservation

6/11/10
Date Signed

For Big Sky Wind, LLC

Signature

Joe WALTER Site MANAGER
Please print name and official title

1 JUN 10
Date Signed

please sign last page
Maria Race to: Joseph Walter 05/27/2010 10:57 AM

Please sign last page and send to IDNR's Joe Kath (not back to Terry.) Keep a receipt of mailing it...

Big Sky DNR ITA Amendment.pdf

Maria Race
Midwest Generation
Edison Mission Energy

630 771 7862 (office)
312 925 3608 (cell)
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