to submit to PUC
1-24-19
includes
contact paragraph

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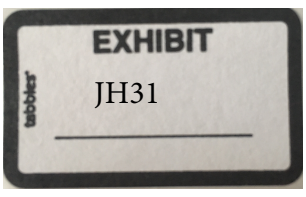
Re: Deuel Harvest North Wind Project Docket# EL18-053

SD PUC

For the following reasons, I believe the entire process of the project permit at the county level has been completely corrupted! Many of our zoning board members and county commissioners, I believe, have conflicts of interest. Through the process of determining county setbacks, 2 commissioners had contracts with wind tower companies. Zoning board members had contracts with Invenergy and or other wind companies. One zoning board member was owner in a company that does business with a wind industry mfg. company. Our zoning officer has a wind contract.



Invenergy participated in many meetings addressing setbacks and later at the permit hearing, knowing full well that at least 3 of the public officials had wind contracts with their company! Invenergy attorneys and executives, Sat at the permit hearing on Jan. 22, 2018, and listened to all the zoning board members state publicly that "they have no conflict of interest." Invenergy had contracts in place with public officials, knowing that these officials would be voting on wind project issues! Neither the company, nor the public officials disclosed any of this!

In section 14.13 of a standard Invenergy contract, it addresses the concerns about public officials having conflicts of interest and how it should be handled. We can provide that section, or the entire standard contract if desired. In my opinion they tried to cover up, or at least ignore this issue completely.

Two of the largest recipiants of wind towers in this project, are Greg Tobin with approx. 17 towers and Darold Hunt with 11 towers. The contracts with these two landowners, were negotiated by John Knight, who is our

current Deuel County States Attorney, while he was advising our zoning board and County Commissioners through out this entire process! That information came to us from INvenergy. He also was advising the zoning board through the process of myself, John Homan, applying for my airport landing strip in section 32 of Glenwood Township. My permit was applied for in March of 2017. It took me 6 months, 6 meetings, to finally be granted the permit. The adjacent landowner, Darold Hunt, offered opposition to my landing strip. During this process, I believe, is when John Knight was negotiating the contract between Darold Hunt and Invenergy. Invenergy also attended my hearings in opposition to the landing strip. They also submitted an ex parte letter to the zoning board requesting that the zoning board require a letter of assurance from us, as a condition to the permit.

At that time, there were no wind towers, no wind project permits pending, and no project layouts, yet the boards first and only concern was how our landing strip would affect wind towers. Later, at the Jan. 22, 2018

permit meeting for the wind project, the zoning board used the letter as a reason not to consider the safety issues for our landing strip before granting the permit for the wind project. Garrett Homan was not given the time to complete his presentation on our safety concerns. We believe it was not read or even considered before the board voted to grant the wind project permit!

More recently in the wind project procedure, at the PUC level, the project was reduced from approx. 150 towers, presented at the county level, to now 112 towers in the PUC application. Approx. 38 towers have been taken out of the project and removed from participating landowners. No towers were removed from the 2 largest tower contract holders as noted earlier, Tobin and Hunt, contracts negotiated by John Knight.

When asked at the Jan. 22, 2018 permit hearing, if they would move some towers to accomodate some non-participants, Invenergy said they could not do that because participants had the right to have those towers.

Now they can and did move towers, apparently for their own benefit. I believe to maximize their own profits.

For these, as well as many other reasons, I ask that the PUC deny this project as proposed.

John Homan

14.13 Public Officials. Owner acknowledges that its receipt of monetary and other good and valuable consideration hereunder may represent a conflict of interest if Owner is a government employee or otherwise serves on a governmental entity with decision-making authority (a "Public Official") as to any rights Grantee may seek, or as to any obligations that may be imposed upon Grantee in order to develop and/or operate the Project ("Development Rights"), and Owner hereby agrees to (1) recuse him/herself from all such decisions related to Grantee's Development Rights unless such recusal is prohibited by law or is not reasonably practicable considering the obligations of such Public Official's position and (2) recuse him/herself from all such decisions related to Grantee's Development Rights if such recusal is required by law. If Owner is not required pursuant to (1) or (2) above to recuse him/herself from a decision related to Grantee's Development Rights, Owner shall, in advance of any vote or other official action on the Development Rights, disclose the existence of this Agreement (but not the financial terms therein) at an open meeting of the relevant governmental entity Owner serves on as a Public Official. Additionally, if Owner is a Public Official and any of Owner's spouse, child or other dependent has a financial interest in the Project, Owner shall disclose such relationship (but not the financial terms thereof) at an open meeting of the relevant governmental entity Owner serves on as a Public Official, prior to participation in any decision related to Grantee's Development Rights.

JH Presentation >
does include
North Redbelly Dace
&
Longeared bat info
& project map.

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I am asking the PUC to deny this project, Deuel Harvest North wind project, Docket # EL 18-053, as proposed for the following reasons:

This project is laid out over one of the most unique areas in the state. It covers a large part of the Coteau Prairie Grasslands, covered by many lakes and sloughs; the area is drained by several spring-fed, year-round, free-flowing creeks. The many lakes: Lake Alice, Lone Tree, Rush Lake, Lake Francis, Lake Ketchum, and numerous large and smaller sloughs and dams. And there are many more lakes within a few miles of the project. I myself have a 35-acre slough on my property. Because of all these assets, it is the home to many different species of wildlife too numerous to list. These lakes and sloughs are all used by local waterfowl populations and have a very high usage by countless migrating populations. A large part of the project area is designated as duck nesting habitat. **This project would be the worst possible scenario for our waterfowl and other bird and wildlife populations.**

The fresh-water springs that cover this area will be greatly impacted by the massive foundations required to build the towers. When I requested a permit to build a one-story home, the zoning board required a detailed

foundation design. This same zoning board didn't require, let alone request, a detailed foundation design before they granted the permits for the wind towers. **What are the foundation designs for these 500 foot industrial wind towers?** How deep will they go? How will pile-driving in shale affect the quality of the freshwater in this area? **I ask that the PUC require an independent study of the geology of the areas impacted by this project.** It should be the responsibility of the wind companies to pay for in-depth studies that prove the project will have no negative effects on the fresh water supply in the region.

I own the west half of the Section 32 in Glenwood township. To the west, southwest, and northwest, I will have 9 towers within 1 mile of my property— the closest one is less than a 1000 feet! Remember these towers are over 500 feet tall! I will have approximately 18 towers within 2 miles, and the view from my property will have many more! If all the current proposed projects go through, there will be no place in Deuel County where you won't be looking at wind towers, listening to them, and being subjected to infrasound or shadow flicker.

My family and I have spent 30 years developing this property for our enjoyment, and to conserve and support the environment and wildlife that enhance the entire area. We have planted thousands of trees and shrubs. I have put in 4 spring-fed dams, that have stayed at almost 100% capacity, because they are spring fed.

Monighan Creek runs from west to east across the property. Within the 1/2 mile, we have 1.3 miles of creek. The creek valley is covered with natural growth trees and shrubs. There are at least 15 different species of

trees alone. In and surrounding this creek valley I have approximately 50 acres of trees. This area starts within 1000 feet of the nearest tower.

Additionally, Monighan Creek is home to the Northern Redbelly Dace, a minnow, that is currently and historically listed on the State Threatened Species List. They've been included on this list due to their need for specific spring-fed habitat. (They are extremely vulnerable to extirpation—local extinction.) (This is from the South Dakota Game Fish and Parks State Threatened and Endangered (T&E) Status Review from April 2018.)

The property has been managed with food plots and cover for all kinds of wildlife, one example is our deer population.. In the past years we have wintered well over 100 deer at a time. It is a nursery as well as a bedroom area for wildlife. { Photos included }

I can't read a complete list now, but some of the species we have are: turkeys, pheasants, grouse, wood ducks, other ducks, geese, herons, egrets, pileated woodpeckers, king fishers, the list goes on and on. This land is home to many unique bird species including indigo buntings, flocks of blue birds, bobolinks, meadowlarks, cedar waxwings, orioles— even bald eagles! (Photos included)

The area has a high population of local ducks and geese as well as high migration usage because of all the lakes, sloughs, dams, and creeks. We also hold a population of monarch butterflies, and have had unbelievable numbers during their migration!!!

Additionally, there are 8 homes within ¾ miles of a row of 7 towers in the SE corner of the project. These homes are located in sections 1 and 6 in Herrick township. There would be 12 towers within 1.5 miles from these homes.

There are approximately 20 towers that are planned on sites directly adjacent to Monighan Creek or next to drainages that flow directly into the creek. Please consider the environmental problems that will be caused by 500' industrial wind towers and their foundations.

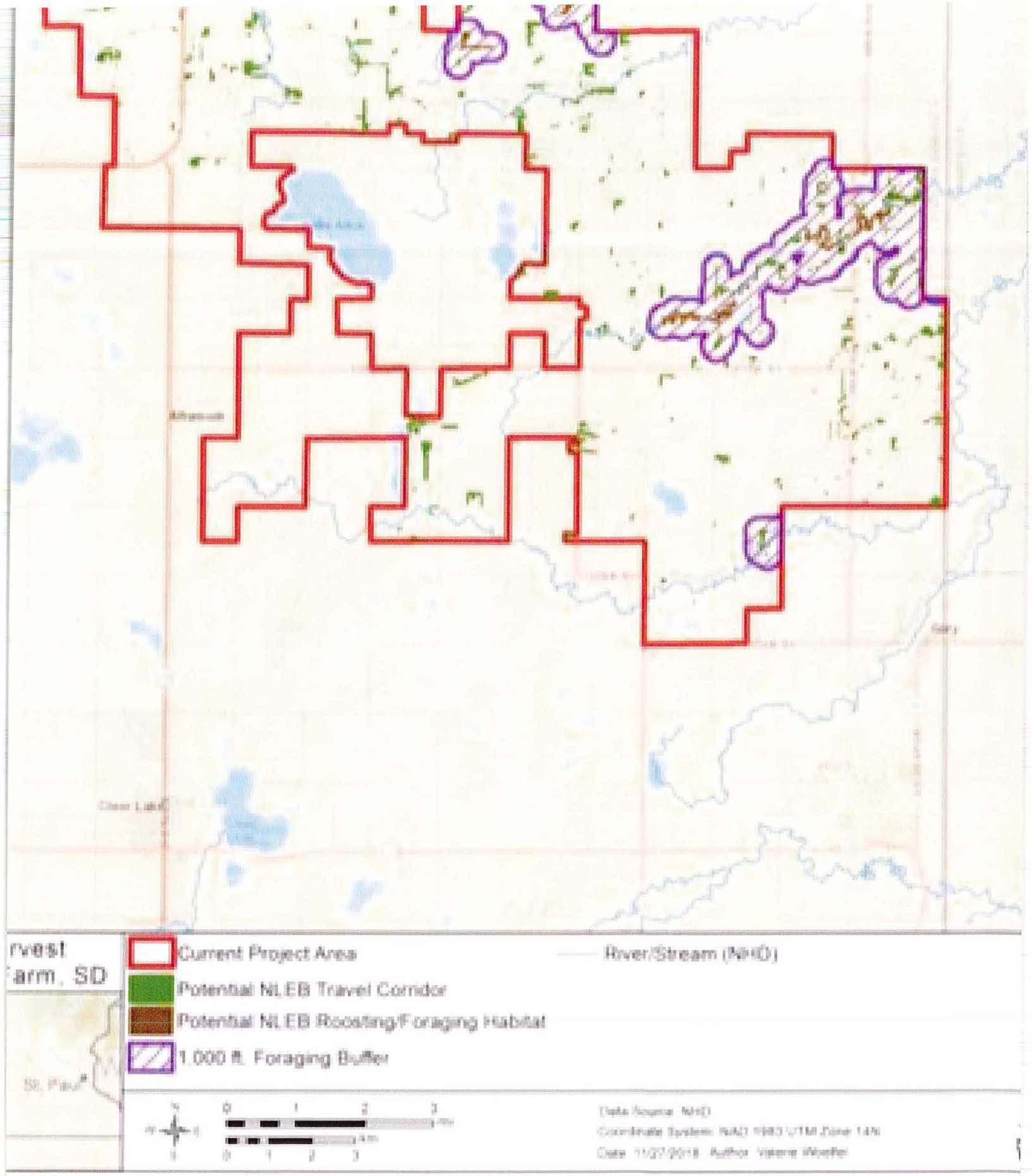
Allowing the wind company to place these wind turbines in such close proximity to my property would be restricting the normal usage and enjoyment of our own property as it now exists, and restricts the same usage in the future. That would be denying my property rights and could be considered trespass zoning.

Please deny this project as proposed.

I will also be submitting a written presentation concerning our grass airport landing strip in Section 32. It has been permitted and we need to defend the safe usage of it, because of the danger that 500' industrial wind towers in this agricultural zoned area, could create.

Thank you.

John Homan



sults of the desktop habitat assessment for northern long-eared bats wit Harvest North Wind Farm in Deuel County, South Dakota.

Endangered Species

Midwest Region

Midwest Endangered Species Home

What We Do

Featured Species

Species Information

State and County Lists

Species Lists

Fact Sheets and Brochures

Field Office Contacts

Regional Office Contacts

Contact Us

The Midwest Region includes Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio and Wisconsin. Find a location near you

Endangered Species Program

Conserving and restoring threatened and endangered species and their ecosystems

Great Lakes RESTORATION

Northern Long-Eared Bat
Myotis septentrionalis

PDF Version

The northern long-eared bat is federally listed as a *threatened species* under the Endangered Species Act. ***Endangered*** species are animals and plants that are in danger of becoming extinct. ***Threatened*** species are animals and plants that are likely to become endangered in the foreseeable future. Identifying, protecting, and restoring endangered and threatened species is the primary objective of the U.S. Fish and Wildlife Service's endangered species program.

Photo by New York Department of Environmental Conservation; Al Hicks

What is the northern long-eared bat?

Appearance: The northern long-eared bat is a medium-sized bat with a body length of 3 to 3.7 inches but a wingspan of 9 to 10 inches. Their fur color can be medium to dark brown on the back and tawny to pale-brown on the underside. As its name suggests, this bat is distinguished by its long ears, particularly as compared to other bats in its genus, *Myotis*.

Winter Habitat: Northern long-eared bats spend winter hibernating in caves and mines, called hibernacula. They use areas in various sized caves or mines with constant temperatures, high humidity, and no air currents. Within hibernacula, surveyors find them hibernating most often in small crevices or cracks, often with only the nose and ears visible.

Summer Habitat: During the summer, northern long-eared bats roost singly or in colonies underneath bark, in cavities or in crevices of both live trees and snags (dead trees). Males and non-reproductive females may also roost in cooler places, like caves and mines. Northern long-eared bats seem to be flexible in selecting roosts, choosing roost trees based on suitability to retain bark or provide cavities or crevices. This bat has also been found rarely roosting in structures, like barns and sheds.

Reproduction: Breeding begins in late summer or early fall when males begin to swarm near hibernacula. After copulation, females store sperm during hibernation until spring. In spring, they emerge from their hibernacula, ovulate and the stored sperm fertilizes an egg. This strategy is called delayed fertilization.

After fertilization, pregnant females migrate to summer areas where they roost in small colonies and

give birth to a single pup. Maternity colonies of females and young generally have 30 to 60 bats at the beginning of the summer, although larger maternity colonies have also been seen. Numbers of individuals in roosts, typically decreases from pregnancy to post-lactation. Most bats within a maternity colony give birth around the same time, which may occur from late May or early June to late July, depending where the colony is located within the species' range. Young bats start flying by 18 to 21 days after birth. Maximum lifespan for the northern long-eared bat is estimated to be up to to 18.5 years.

Feeding Habits: Like most bats, northern long-eared bats emerge at dusk to feed. They primarily fly through the understory of forested areas feeding on moths, flies, leafhoppers, caddisflies, and beetles, which they catch while in flight using echolocation or by gleaning motionless insects from vegetation.

Range: The northern long-eared bat's range includes much of the eastern and north central United States, and all Canadian provinces from the Atlantic Ocean west to the southern Yukon Territory and eastern British Columbia. The species' range includes the following 37 States and the District of Columbia: Alabama, Arkansas, Connecticut, Delaware, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Vermont, Virginia, West Virginia, Wisconsin, and Wyoming.

Why is the northern long-eared bat in trouble?

White-nose Syndrome: No other threat is as severe and immediate as the disease, white-nose syndrome. If this disease had not emerged, it is unlikely the northern long-eared bat would be experiencing such a dramatic population decline. Since symptoms were first observed in New York in 2006, white-nose syndrome has spread rapidly from the Northeast to the Midwest and Southeast; an area that includes the core of the northern long-eared bat's range where it was most common before this disease. Numbers of northern long-eared bats (from hibernacula counts) have declined by up to 99 percent in the Northeast. Although there is uncertainty about the rate that white-nose syndrome will spread throughout the species' range, it is expected to spread throughout the United States in the foreseeable future.

Other Sources of Mortality: Although no significant population declines have been observed due to the sources of mortality listed below, they may now be important factors affecting this bat's viability until we find ways to address white-nose syndrome.

Impacts to Hibernacula: Gates or other structures intended to exclude people from caves and mines not only restrict bat flight and movement, but also change airflow and internal cave and mine microclimates. A change of even a few degrees can make a cave unsuitable for hibernating bats. Also, cave-dwelling bats are vulnerable to human disturbance while hibernating. Arousal during hibernation causes bats to use up their already reduced energy stores, which may lead to individuals not surviving the winter.

Loss or Degradation of Summer Habitat:*Loss or Degradation of Summer Habitat:* Highway construction, commercial development, surface mining, and wind facility construction permanently remove habitat and are activities prevalent in many areas of this bat's range. Forest management benefits northern long-eared bats by keeping areas forested rather than converted to other uses. But, depending on type and timing, forest management activities can cause mortality and temporarily remove or degrade roosting and foraging habitat.

Wind Farm Operation: Wind turbines kill bats, and, depending on the species, in very large numbers. Mortality has been documented for northern long-eared bats, although a small number have been found to date. However, there are many wind projects within a large portion of the bat's range and many more are planned.

What Is Being Done to Help the Northern Long-Eared Bat?

Disease Management: Actions have been taken to try to reduce or slow the spread of white-nose syndrome through human transmission of the fungus into caves (e.g. cave and mine closures and advisories; national decontamination protocols). A national plan was prepared by the Service and other state and federal agencies that details actions needed to investigate and manage white-nose syndrome. Many state and federal agencies, universities and non-governmental organizations are

researching this disease to try to control its spread and address its affect. See www.whitenosesyndrome.org/ for more.

Addressing Wind Turbine Mortality: The Service and others are working to minimize bat mortality from wind turbines on several fronts. We fund and conduct research to determine why bats are susceptible to turbines, how to operate turbines to minimize mortality and where important bird and bat migration routes are located. The Service, State natural resource agencies, and wind energy industry are developing a Midwest Wind Energy Habitat Conservation Plan that will provide wind farms a mechanism to continue operating legally while minimizing and mitigating listed bat mortality.

Listing: The northern long-eared bat is listed as a threatened species under the federal Endangered Species Act. Listing a species affords it the protections of the Act and also increases the priority of the species for funds, grants, and recovery opportunities.

Hibernacula Protection: Many federal and state natural resource agencies and conservation organizations have protected caves and mines that are important hibernacula for cave-dwelling bats.

What Can I Do to Help the Northern Long-Eared Bat?

Do Not Disturb Hibernating Bats: To protect bats and their habitats, comply with all cave and mine closures, advisories, and regulations. In areas without a cave and mine closure policy, follow approved decontamination protocols (see http://whitenosesyndrome.org/topics/decontamination) - under no circumstances should clothing, footwear, or equipment that was used in a White-nose Syndrome affected state or region be used in unaffected states or regions.

Leave Dead and Dying Trees Standing: Like most eastern bats, the northern long-eared bat roosts in trees during summer. Where possible and not a safety hazard, leave dead or dying trees on your property. Northern long-eared bats and many other animals use these trees.

Install a Bat Box: Dead and dying trees are usually not left standing, so trees suitable for roosting may be in short supply and bat boxes may provide additional roost sites. Bat boxes are especially needed from April to August when females look for safe and quiet places to give birth and raise their pups.

Support Sustainability: Support efforts in your community, county and state to ensure that sustainability is a development goal. Only through sustainable living will we provide rare and declining species, like the northern long-eared bat, the habitat and resources they need to survive along with us.

Spread the Word: Understanding the important ecological role that bats play is a key to conserving the northern long-eared and other bats. Helping people learn more about the northern long bat and other endangered species can lead to more effective recovery efforts. Visit www.whitenosesyndrome.org for more information about white-nose syndrome.

Join and Volunteer: Join a conservation group; many have local chapters. Volunteer at a local nature center, zoo, or national wildlife refuge. Many state natural resource agencies benefit greatly from citizen involvement in monitoring wildlife. Check your state agency websites and get involved in citizen science efforts in your area.

Updated April 2015

Northern Long-Eared Bat Home
Midwest Endangered Species Home

Last updated: March 12, 2018

State and Federally Listed Threatened, Endangered and Candidate Species Documented in South Dakota by County. Updated on 07/19/2016

The following list contains documented occurrences of both state and federally listed species by county in South Dakota. Records were compiled from the South Dakota Natural Heritage Database and expert knowledge of species occurrences. Please note that the absence of a species from a county list does not preclude its presence and that a listing of a historical record does not necessarily mean the species still occurs in that county.

Documentations of bird species consist of known breeding records with the exception of the whooping crane (*Grus americana*) for which all observations are included. However, please note that while the year-round distribution of the American dipper (*Cinclus mexicanus*) does not change, all other listed bird species may be found throughout the state during migration.

If more specific information is needed for a particular project site, please visit the following website to request a search of the Natural Heritage Database: http://gfp.sd.gov/wildlife/threatened-endangered/default.aspx

Species statuses include: FE = Federally Endangered, FT = Federally Threatened, PE = Proposed Endangered (Federal), PT = Proposed Threatened (Federal) C = Federal Candidate, SE = State Endangered, ST = State Threatened.

County	Common Name	Scientific Name	Status
Aurora	Topeka Shiner	*Notropis topeka*	FE
	Whooping Crane	*Grus americana*	FE, SE
Beadle	Topeka Shiner	*Notropis topeka*	FE
	Whooping Crane	*Grus americana*	FE, SE
	Northern River Otter	*Lontra canadensis*	ST
Bennett	Northern Pearl Dace	*Margariscus nachtriebi*	ST
	American Burying Beetle	*Nicrophorus americanus*	FE
	Northern Redbelly Dace	*Chrosomus eos*	ST
	Whooping Crane	*Grus americana*	FE, SE
	Swift Fox	*Vulpes velox*	ST
Bon Homme	Blacknose Shiner	*Notropis heterolepis*	SE
	Northern Redbelly Dace	*Chrosomus eos*	ST
	Pallid Sturgeon	*Scaphirhynchus albus*	FE, SE
	Shovelnose Sturgeon	*Scaphirhynchus platorynchus*	FT
	Sturgeon Chub	*Macrhybopsis gelida*	ST
	Sicklefin Chub	*Macrhybopsis meeki*	ST
	Topeka Shiner	*Notropis topeka*	FE
	False Map Turtle	*Graptemys pseudogeographica*	ST
	Interior Least Tern	*Sternula antillarum athalassos*	FE, SE
	Piping Plover	*Charadrius melodus*	FT, ST
	Whooping Crane	*Grus americana*	FE, SE

	Swift Fox	*Vulpes velox*	ST
Davison	Topeka Shiner	*Notropis topeka*	FE
Day	Blacknose Shiner	*Notropis heterolepis*	SE
	Dakota Skipper	*Hesperia dacotae*	FT
	Poweshiek Skipperling	*Oarisma poweshiek*	FE
	Banded Killifish	*Fundulus diaphanus*	SE
	Piping Plover	*Charadrius melodus*	FT, ST
	Whooping Crane	*Grus americana*	FE, SE
	Northern River Otter	*Lontra canadensis*	ST
Deuel	Dakota Skipper	*Hesperia dacotae*	FT
	Poweshiek Skipperling	*Oarisma poweshiek*	FE
	Banded Killifish	*Fundulus diaphanus*	SE
	Northern Redbelly Dace	*Chrosomus eos*	ST
	Topeka Shiner	*Notropis topeka*	FE
	Northern River Otter	*Lontra canadensis*	ST
Dewey	Pallid Sturgeon	*Scaphirhynchus albus*	FE, SE
	Shovelnose Sturgeon	*Scaphirhynchus platorynchus*	FT
	Interior Least Tern	*Sternula antillarum athalassos*	FE, SE
	Piping Plover	*Charadrius melodus*	FT, ST
	Whooping Crane	*Grus americana*	FE, SE
	Black-footed Ferret	*Mustela nigripes*	FE, SE
Douglas	Whooping Crane	*Grus americana*	FE, SE
Edmunds	Whooping Crane	*Grus americana*	FE, SE
Fall River	Finescale Dace	*Chrosomus neogaeus*	SE
	Osprey	*Pandion haliaetus*	ST
	Swift Fox	*Vulpes velox*	ST
Faulk	Whooping Crane	*Grus americana*	FE, SE
Grant	Dakota Skipper	*Hesperia dacotae*	FT
	Poweshiek Skipperling	*Oarisma poweshiek*	FE
	Blacknose Shiner	*Notropis heterolepis*	SE
	Northern Redbelly Dace	*Chrosomus eos*	ST
	Osprey	*Pandion haliaetus*	ST
	Northern River Otter	*Lontra canadensis*	ST
Gregory	American Burying Beetle	*Nicrophorus americanus*	FE
	Northern Pearl Dace	*Margariscus nachtriebi*	ST
	Pallid Sturgeon	*Scaphirhynchus albus*	FE, SE
	Shovelnose Sturgeon	*Scaphirhynchus platorynchus*	FT
	Sicklefin Chub	*Macrhybopsis meeki*	ST
	Sturgeon Chub	*Macrhybopsis gelida*	ST
	False Map Turtle	*Graptemys pseudogeographica*	ST
	Piping Plover	*Charadrius melodus*	FT, ST
	Interior Least Tern	*Sternula antillarum athalassos*	FE, SE

NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE SPECIFICATION GUIDE SHEET

STREAM HABITAT IMPROVEMENT AND MANAGEMENT

(ac.)
CODE 395

GENERAL CRITERIA

Stream habitat improvements and management will be based on a watershed assessment and an assessment of current stream and riparian conditions. There are several models and evaluation tools that may be used. These are identified in Table 1.

An assessment will be completed regarding impacts to any threatened, endangered, or special concern species identified by federal, state, or tribal governments. Use current South Dakota Procedures contained in Section II of the South Dakota Technical Guide.

Measures will be planned to avoid spawning periods or other key periods for fish species inhabiting the stream. Refer to Table 2 for key information regarding fish species in South Dakota.

Criteria for Purpose 2 – Provide channel morphology and riparian characteristics important to desired aquatic species.

The species or group of species for which habitat is being managed and/or developed will be identified on the SD-CPA-26, and specific habitat features and management will be documented on the form as appropriate. Specific habitat requirements, habitat models, or other habitat information for targeted species will be obtained from a SD NRCS biologist.

REFERENCES

Bureau of Land Management 1993. Process for Assessing Proper Functioning Condition. Technical Reference 1737-9. US Dept. Interior. Denver, CO. 51 pp.

Churchill, Edward P., and William H. Over 1938. Fishes of South Dakota. 87 pp.

Morris, Morris and Witt. 1972. The fishes of Nebraska.

Neumann, Robert M., and David W. Willis. 1994. Guide to the common fishes of South Dakota. South Dakota Dept. of Game Fish and Parks and Dept of Wildlife and Fisheries Sciences, South Dakota State University. 60 pp.

Table 1. Stream corridor assessment methods.

Abbreviated label	Full title of assessment method	Key reference locations for South Dakota
HGM	Hydrogeomorphic wetland functional assessment models for riverine systems	South Dakota Technical Guide Section 1.
SVAP	Stream Visual Assessment Protocol	NRCS
PFC	Proper Functioning Condition	Bureau of Land Management 1993
IBI	Index of Biotic Integrity	SDGF&P
RCE		

Table 1. Summary of key information regarding fish species found in South Dakota for locations and timing of stream habitat management and improvement measures.

SPECIES	SPAWNING HABITAT	CONCERNS/NOTES		STATUS
Trout-perch *Percopsis omiscomaycus*	Spring to late summer	Lakes and turbid streams; a nocturnal species feeding over shallow bottoms on insect larvae and amphipods	Lakes and streams of the Big Sioux and Minnesota River drainages; found in Brookings, Codington, Grant, Hamlin, Lincoln, Minnehaha, Moody, Roberts, Union Counties; specifically known within 1 mile of Big Sioux River; & Lake Kampeska (Codington)	ST
Northern redbelly dace *Phoxinus eos*	Late spring thru summer mats of algae or aquatic plants; eggs hatch in 8 – 10 days	Boggy lakes, creeks, and ponds; often found in tea-colored, slightly acid water; feeding on algae, zooplankton, & immature aquatic insects	Adverse impacts to spring-fed streams of the Big Sioux, Minnesota, Niobrara, and Crow Creek drainages; found in Bennett, Brookings, Buffalo, Deuel, Grant, Todd, & Tripp Counties; specifically known within 1 mile of Keya Paha River and its perennial tributaries, Lake Creek, Six Mile and Deer Creeks (Brookings), Monighan & Gary Creeks (Deuel), North Fork Yellow Bank River (Grant), & South Fork Yellow Bank River (Deuel & Grant)	ST


02/27/2007