BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION OF DEUEL HARVEST WIND ENERGY LLC FOR A PERMIT OF A WIND ENERGY FACILITY AND A 345-KV TRANSMISSION LINE IN DEUEL COUNTY	* * * * * * * *	**STAFF'S SECOND SET OF DATA REQUESTS TO HEATH STONE** **EL18-053**

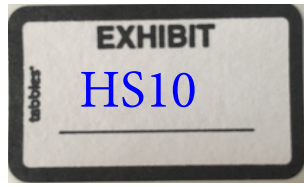
Below, please find Staff's Second Set of Data Requests to Mr. Heath Stone. Please submit responses within 10 business days, or promptly contact Staff to discuss an alternative arrangement.

2-1) Referring to the response of Heath Stone to Staff Data Request 1-3, you recommend the following mitigation measure: "I recommend the Commission to order the applicant to adhere to the 2-mile buffer given to the eagle nests outside of the project area to be the same for the eagle nest that has been monitored the past two years, north of Lake Alice a half mile."

a) Please explain the basis for the two-mile buffer for the bald eagle nest north of Lake Alice, and provide documentation to support the recommendation.
b) In the Applicant Supplemental Testimony of Andrea Giampoli, Ms. Giampoli stated Deuel Harvest will voluntarily apply an 800-meter (2,625 feet) setback from the nest to the nearest turbine based on the South Dakota Bald Eagle Management Plan. Do you believe this setback is unreasonable? If yes, please explain and provide support.

2-2) Referring to the response of Heath Stone to Staff Data Request 1-3, you requested the following mitigation measure: "I recommend the Commission to review the placement of turbines that are in close proximity of bird movement corridors and concentrated bird and/or bat use areas. Set back of 1 mile to these areas. Provide property value guarantees for nonparticipants in the siting area."

a) Please define "bird movement corridors" and "concentrated bird and/or bat use areas."
b) Please provide a map that identified these corridors and areas within the Project area and up to 1 mile outside the project area.
c) Please explain the basis for a 1-mile set back from these corridors and areas, and include supporting documentation.
d) Are you aware if the referenced corridors or areas are defined by other agencies in and around other wind energy facilities? If yes, please provide.



2-3) Referring to the response of Heath Stone to Staff Data Request 1-3, you requested the following mitigation measure: "I recommend the Commission to study the impact that turbine placement will have on future development of non-participating landowners. Currently, if the project was completed to today, future development on my property at the old homestead would be within the setback established in the Deuel County Ordinance B2004-01 Section 1215.03 Section 2a."

a) What would the study requested assess? Please provide specific details.
b) Have you requested the Company implement a voluntary setback from the old homestead consistent with the Deuel County Ordinance B2004-01 Section 1215.03 Section 2a? If yes, please provide the Company's rational for not implementing the setback.

2-4) Referring to the response of Heath Stone to Staff Data Request 1-3, you requested the following mitigation measure: "I recommend the Commission to reevaluate turbine placements next to ecological sensitive areas and give them a 2 mile setback."

a) Are you aware of agencies that have defined an "ecological sensitive area" in and around other wind energy facilities? If yes, please provide supporting documentation with setback information. If no, please provide your definition with supporting documentation.
b) How many ecological sensitive areas are in and around the Deuel Harvest North Wind Farm? Please provide support for your answer.
c) Please explain the basis for the 2-mile setback recommendation.

2-5) Referring to the response of Heath Stone to Staff Data Request 1-3, you requested the following mitigation measure: "I recommend the commission to review turbine replacements next to non-participating landowners and give them a setback of 4 times the height of a tower."

a) Is the setback from the property line or residence? Please provide support for the recommendation.
b) If the setback is from the residence, please explain how the setback is different than Deuel County Ordinance B2004-01 Section 1215.03 Section 2a.

Dated this 4th day of March 2019.

Amanda M. Reiss

Amanda M. Reiss
Kristen Edwards
Staff Attorneys
South Dakota Public Utilities Commission
500 East Capitol Ave.
Pierre, SD 57501

EL18-053 - In the Matter of the Application of Deuel Harvest Wind Energy LLC for a Permit of a Wind Energy Facility and a 345-kV Transmission Line in Deuel County

Response to Staff's second set of data requests to Heath Stone

2-1)

a) The 2 mile buffer for the bald eagle nest North of Lake Alice is taken directly from the applicants own 2 mile buffer they provided for the eagle nests that are located near the project as noted on the Environmental Constraints Map (Appendix A Figure A-3). Andrea states in her testimony, "On Figure A-3 of the Application, we showed a two-mile buffer around eagle nests to illustrate the distance between the nests known at the time and the Project Area." This is an inadequate statement. On the map that is provided in Exhibit 1, it states in the legend, "2-mile Bald Eagle Nest Buffer". This statement clearly identifies Deuel Harvests intentions on providing a 2-mile buffer to all eagle nests.

b) The set back that is stated in Andrea Giampoli testimony is not reasonable. The nest in question was obviously overlooked by the applicant. Now that the nest was pointed out at this location, Deuel Harvest is retracting on the 2-mile buffer they were providing an eagle nest due to the limitation this will pose on the project. Andrea states, "Deuel Harvest surveyed the Project Area and a ten-mile buffer by helicopter for eagle nests in 2016 and conducted a follow-up ground-based survey in the Project Area in 2017. No eagle nests were detected near Lake Alice or in the Project Area during either survey." However, Andrea goes on to state "In February 2018, the USFWS shared with us that a landowner had brought to their attention that there may be an eagle nest north of Lake Alice. We reviewed the SDGFP Natural Heritage Program response, and the results of our two years of nest surveys and noted that while there were medium sized raptor nests observed north of Lake Alice, none was considered large enough to be an eagle nest, so no further due diligence was conducted at that time." This statement reiterates how Deuel Harvest did not adequately follow up on conducting any surveys about the eagle nest located north of Lake Alice. They looked at their information on paper, but did not do an onsite follow up with the new information provided by the USFWS. This blatantly shows the cover up that Deuel Harvest new about this nest before 2018 and only did their due diligence once they were called out on it in 2019. How is it, the company does 2 years of surveys and does not notice this nest, even as an unknown raptor nest, or do any further investigation or follow up in February of 2018 to confirm if there was a nest at that location describe by USFWS? The map provided in the Bird and Bat Conservation Strategy, shows all the known locations of nests. This is why these surveys are conducted, even if the USFWS and SDGFP do not have a nest listed in their data bases, does not mean they are not present. However, there is documentation from SDGFP that this nest has been active since 2016. (See Documentation below) The setback should stay two miles as shown in the Environmental Constraints map provided by Deuel Harvest (Appendix A Figure A-3).

2-2)

a) As a lifelong resident of Deuel County, I have observed this area since I started at age 12. My main interest is waterfowl. I mentioned bird movement corridors and concentrated use areas which are terms I use to describe the area that I have observed for 20 years. Corridors are defined as the areas between wetlands that birds typically fly from spot to spot and the

areas they use going from water to fields. Over 20 years of observation, has led to successful knowledge of traditional flights paths. Towers within these corridors will disrupt their patterns and may lead to collision or avoidance from the area.
Concentrated use areas are defined as where waterfowl roost, breed, and nest. Both the corridor and use areas I have defined have numerous wind turbines that will disrupt the areas waterfowl population and cause avoidance. Even if recommendations for siting energy development outside of intact landscapes suggested by Kiesecker et al. (2011) are implemented by the wind industry, millions of wetlands occur in agricultural landscapes and our results indicate that wind energy development will likely reduce their use by breeding duck pairs (Loesch et al. 2013).

b) The map provided, is based off of 20 years of observations in the areas highlight. The red lines indicate the most common flight paths use with each dead end of the red line indicating a stop in flight. The yellow circles indicate high use and concentrations of waterfowl for roosting, feeding, breeding, nesting and loafing.

c) A one mile setback will allow waterfowl to continue using this vital area. As stated earlier.....wind energy development will likely reduce their use by breeding duck pairs (Loesch et al. 2013).

d) I am not aware of any agency that specifically used the same terms I did. As for the map I submitted, no other agency has done a map detailing the movement of waterfowl in this area. I have the knowledge and history of knowing the migration routes and patterns used from 20 year of experience. I did not map the whole project, since I cannot attest to those areas not highlighted. The area I did highlight is where I have spent most of my time. As the map indicates, this area is heavily used by waterfowl and given the number of wetlands in the vicinity attest to why this is a vital area to waterfowl. One can assume, the rest of the project, when in close proximity to permanent bodies of water, is going to mirror what I have mapped out.

2-3)

a) The study would be a survey to non-participating landowners and residents to determine what the planned development would be for the future. The survey should ask questions such as:

1. In the near future, what is the likely hood development would happen on your property?
2. What kinds of development would most likely happen on your property?
3. What development will be restricted on your property if turbines are placed within 1 mile of your property? Half mile?

These questions, will help the commission better understand the negative impact Deuel Harvest will have on non-participating landowners and residences development of their property.

b) No request has been made to Deuel Harvest.

2-4) The definition of an ecological sensitive area is: An area of environmental importance having natural resources which if degraded may lead to significant adverse, social, economic or ecological consequences. These could be areas in or adjacent to aquatic ecosystems, drinking water sources, unique or declining species habitat, and other similar sites. The whole project is an ecological sensitive area. The tallgrass prairie is an endangered ecosystem that is described in detail in a press release by the USFWS. Precautions should be made to protect this area.

2-5) a) The setback is from the property line as I stated in my corrected version of the first data set sent to PUC staff. My concern is zoning trespass by the company that will be on my property and Stone's Conservation Acres LLP. In the Vestas Mechanical Operating and Maintenance Manual (Exhibit 4), it states, "Do not stay within a radius of 400m (1300ft) from the turbine unless it is necessary. If you have to inspect an operating turbine from the ground, do not stay under the rotor plane but observe the rotor from the front."(p.3) Also, "In case of a fire during an uncontrolled operation, do under no circumstances approach the turbine. Evacuate and rope off the turbine in a radius of minimum 400m (1300ft)" (p.17). Since Deuel Harvest is not using Vestas, I am curious to what is stated in GE's operating and maintenance manual.

The company does not have the right to impose their danger zone on our property therefore utilizing our property for the project. If a turbine fails while workers are present and the only way to get away from the turbine is to come through our property, this is trespassing buy the company. Also, we host many hunters every fall and are out their everyday hunting. I should not have to worry if my clients or family are in danger.

Fire is a huge concern for this area. If a turbine catches fire, there is a greater threat it will do more damage than just the location it sits on. Deuel Harvest is located in an area where grassland is prominent. Our pheasant hunting operation is a mixture of grass, trees and cattails, and adjacent to our property is grassland. If a turbine catches fire and it spreads on to our land and burns up our entire habitat, habitat that has taken 50 years to establish, where are we suppose to take our clients. This would have a direct impact on our operation. As I have stated before, tower 109 is only 550 ft from our property and is all grass in between. Tower 103 is NW of my property and is only 620ft from grass that could start and continue on to my property.

A tower that is 500 ft tall and is on fire will have the capability of creating spot fires which is defined as-a fire ignited outside the perimeter of the main fire by flying sparks or embers. These embers, once air borne, can travel from a quarter to a mile away and start new fires when conditions are right. A wind turbine sparked a grass fire near Arlington, OR that burned about 2000 acres (see article below) This danger is very real and poses a significant risk to this area with it expanse parcels of grasslands, heavy fuel loadings, and lack of access to these areas.

The only way I see zoning trespass to be mitigated is more distance between a non-participants property line and the tower. Vestas states 1,300ft from the radius of the turbine for the safety of their workers. I am stating a minimum distance of 4 times the height of the tower from the property line. This will protect all property owners from any model of turbine that is erected. Keep the danger of a malfunction turbine and the danger zone on the lease holder's property, not a non-participants land.

a) Set back is from the Property Line as stated in my amendment to my first set of data answers.

Midwest Region

News Release
May 19, 2010
Contact: Georgia Parham
812-334-4261 x 1203
Georgia_Parham@fws.gov

ENDANGERED SPECIES DAY: MAY 21, 2010

Conserving an Endangered Ecosystem: The Northern Tallgrass Prairie National Wildlife Refuge

By Kim Mitchell and Alice Hanley
U.S. Fish and Wildlife Service

Five years ago, the U.S. Senate designated the third Friday in May as Endangered Species Day. This year, Endangered Species Day is May 21, an opportunity to raise awareness about imperiled plants, animals, and habitats, and to demonstrate ways that others can help conserve these resources. The following is an example of the U.S. Fish and Wildlife Service working with others to recover endangered plants, animals and habitats.

Northern tallgrass prairie, once one of the Midwest's largest and most biologically productive ecosystems, has been reduced to less than one-tenth of one percent of its original expanse and has become almost functionally extinct due to fire control and extirpation of keystone species. Estimates place the original northern tallgrass prairie in Minnesota and Iowa at approximately 25 million acres. Fewer than 300,000 acres remain, most of it scattered in small parcels that often have little or no wildlife value.

Grassland nesting birds, such as dickcissels, bobolinks, and upland plovers, are some of the most imperiled species found in northern tallgrass prairies. They have shown more dramatic, consistent, and widespread declines than any other group of birds in North America. Not surprisingly, their declines mirror declines in quantity and quality of our native grasslands. Besides simply having few areas available for nesting, predation and competition further reduce the chance for grassland nesting birds to survive and have young. Large predators (wolves, cougar, and bear) have been replaced by smaller predators (fox, skunk, and raccoon) that prey extensively on birds, their eggs, and their young.

Grassland birds that nest in prairie fragments are forced to concentrate their nests in small, scattered parcels of habitat characterized by large amounts of edge (the area where prairie meets farmland, lawns, or other types of habitats). The problem with edge, from a bird's perspective, is that it provides corridors along which red fox, striped skunk, and raccoon hunt, making it easy for them to find ground nests near edges. The more edge and less interior grasslands, the more nests lost to predators. Further, fire control and woody plantings have allowed forest-edge birds to expand from the Midwest oak and Eastern deciduous forests, westward into prairies areas, adding to competition for the small amount of remaining habitat.

The Northern Tallgrass Prairie National Wildlife Refuge was established in 2000 to address the loss of these American grasslands and the declining species that depend on them. Refuge management focuses on connecting scattered remnant prairies in western Minnesota and Iowa and restoring ecosystem functions. The refuge provides a place for groups with similar goals to work together to conserve and restore northern tallgrass prairie.

Lands proposed for inclusion in the refuge contain native grasslands that, in many cases, are the only remaining cover available to wildlife in a predominantly agricultural landscape. Incredibly, these remnant tracts support more than 300 plant species and 1,500 insect species. Wildlife associated with these small, scattered tracts include upland sandpiper, marbled godwit, sandhill crane, and prairie chicken. Approximately 243 species of birds are known to regularly use the northern tallgrass prairie area at some time of the year, with 152 species breeding here.

Although limited to small, scattered tracts of remnant prairie, the Northern Tallgrass Prairie National Wildlife Refuge supports a surprising diversity of life. Four plant species and seven wildlife species found in the refuge are federally endangered or threatened, including two of the world's largest populations of the threatened prairie bush clover, as well as the federally threatened western prairie fringed orchid and piping plover. The refuge contains indispensable habitat for waterfowl such as mallards, pintail, canvasback and blue-winged teal.

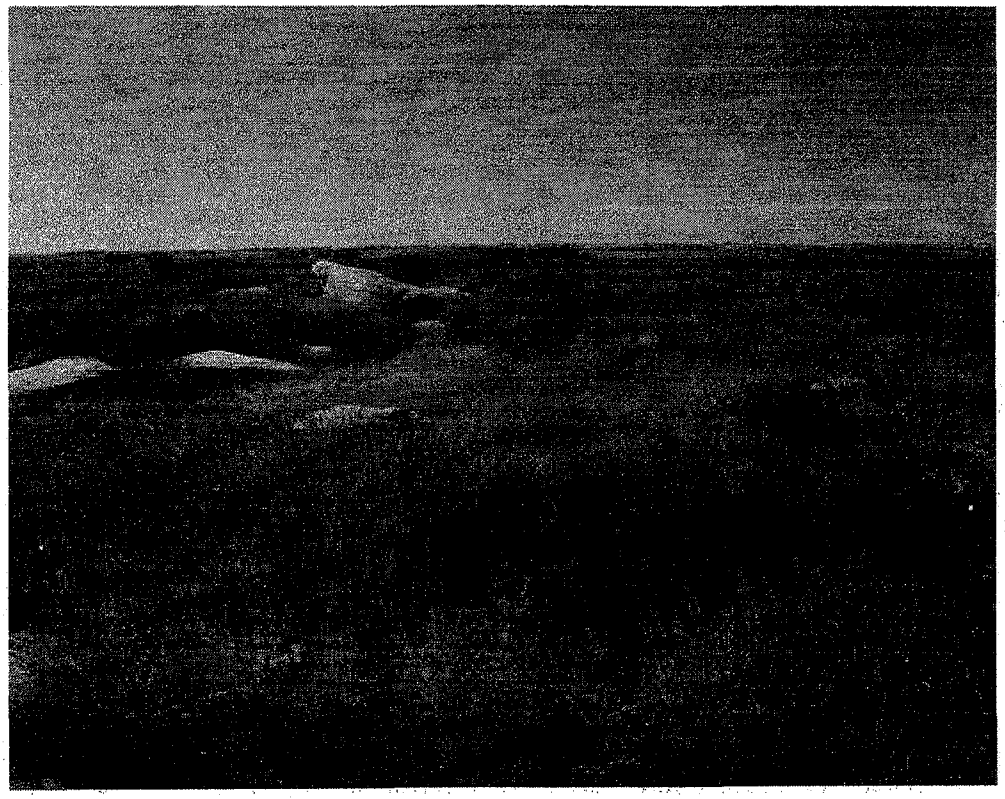
Several globally rare species can be found here, including some of the last remaining populations of the rare Dakota skipper, powesheik skipperling, and regal fritillary butterflies.

Remaining tallgrass prairie in Minnesota and Iowa is continually threatened by lack of fire, intensive grazing systems, gravel mining, conversion to agricultural row crops, and invasive nonnative species. Protection through acquisition or easement prevents conversion and allows management in the form of prescribed fire, rotational grazing where appropriate, and restoration of old cropland using local ecotype grass and forb seed.

In the long term, refuge staff hope to reconstruct tallgrass prairie using native plant species to buffer or connect remnant native prairie tracts, which are severely threatened by fragmentation. During poor economies, financially stressed farmers often consider dividing and selling portions of their land. Easements can provide financial assistance to help them keep their property and prevent further subdivision. Prairies are a well-documented store of terrestrial carbon. Preventing conversion with grassland easements ensures this carbon will be maintained.

The Northern Tallgrass Prairie National Wildlife Refuge, by preserving and restoring remnant prairie, is preventing the extinction of an ecosystem and helping to conserve and recover many rare and declining species.

For information on endangered species work in the Midwest, visit www.fws.gov/midwest/endangered



The mission of the U.S. Fish and Wildlife Service is working with others to conserve, protect and enhance fish, wildlife, plants and their habitats for the continuing benefit of the American people. We are both a leader and trusted partner in fish and wildlife conservation, known for our scientific excellence, stewardship of lands and natural resources, dedicated professionals and commitment to public service.

Looking for more content? You can connect with us on Facebook, Twitter and Instagram. For multimedia, check out our videos on YouTube and download photos on Flickr.

https://www.eastoregonian.com/news/local/wind-turbine-sparks-grass-fire/article_c8471827-bf9b-5a07-9f40-d4c2f540b8fd.html

Wind turbine sparks grass fire

Jade McDowell Aug 3, 2018

A malfunctioning wind turbine sparked a grass fire near Arlington that burned about 2,000 acres on Thursday.

Joe Claughton, North Gilliam Rural Fire Protection District chief, said no buildings were burned, but two railroad trestles caught on fire. The fire started about half a mile from milepost 3 on Highway 19 by Rattlesnake Road.

Claughton said he's seen about "half a dozen" wind turbine fires over the years, but this is the first one he saw that sparked a grass fire.

"They're usually electrical fires," he said. "Usually they go out after closing the door and letting them smother out."

A 2012 study by the Renewable Energy Foundation found that wind turbines in Europe were marketed with a 20-year life expectancy, but were actually wearing out in 12-15 years. The Global Wind Energy Council, an international trade association for the wind industry, found records of about 200 wind turbine-caused fires between 1995 and 2012 — an average of one per year for every 19,230 turbines worldwide.

Fire districts from Pilot Rock, Echo, Irrigon, Ione, Lexington, Condon, Boardman and Umatilla County Fire District 1 helped respond to the fire outside of Arlington Thursday, as well as the Gilliam County road department and Oregon Department of Transportation. Claughton said he was also grateful for the farmers who showed up to help disc fire lines and lend a hand in fighting the fires.

He said often fire departments from Sherman County and Wasco County to the west would help instead, but they were busy with multiple fires of their own, including the South Valley fire near Dufur.

"With all they have going on, I didn't even ask that direction," he said.

Agencies from Umatilla and Morrow counties also responded last week to a fire along Interstate 84 near Arlington that burned about 1,800 acres. That fire was suspected to be caused by a cigarette butt thrown from a vehicle.

Bald Eagle Nest Survey Form

Ideally, the nest should be checked two to three times, once in late March to determine if bald eagles are using the nest, once in early June to count the number of nestlings (this check is the least important), and once in late June just before fledging. Nest checks after major storms could also be useful. Choose a spot where you can see the nest well, but far enough away that you do not disturb the parents. If they are circling overhead or "barking" at you, you are too close, and you may cause the parents to abandon the nest site or the young to fledge too early. After the family has left in late August, try to make a final visit to the nest tree to take a GPS location and identify any food remains under the nest. Approach the nest only after the birds have gone and only if you have express landowner permission to be on the property.
The most important information is: **Is the site occupied by a pair of eagles? Did the pair attempt to nest? How many young survived to fledge from the nest?**

Thank you very much for your help. If you have any questions, please feel free to call Corey Huxoll at 605-773-4195. Please return the completed survey forms to **Corey Huxoll, SD Game, Fish & Parks, 523 East Capitol Ave. Pierre, SD 57501.** E-mail: Corey.Huxoll@state.sd.us

Site Name: North Lake Alice County: Deuel Year: 2016

Location/Directions: North side of 172nd Street, ½ mile east of 478th Avenue in large "L shaped" tree belt

Legal Description: T 117N R 48W Section 31 1/4 _____ 1/4 _____

Contact/Landowner: Terry Brandenburg Phone: _____

	Observation Time		# Eagles		Nesting Activity/Comments	
Date	Start	End	Adults	Young	Courtship, incubation, hatching, fledged young, nest destroyed, etc.	Observer
4/4/16	3:00pm	3:10pm	2	0	1 eagle on nest, 1 eagle sitting in nearby tree	Behnke
4/29/16	6:00pm	6:15pm	2	0	1 eagle on nest, 1 eagle flying around area	Behnke
6/15/16	12:30p	12:45p	1	1	1 adult on nearby tree, 1 eaglet in nest	Behnke
7/8/16	8:45am	9:00am	0	1	No adult visible, 1 young in nest	Behnke

PLEASE COMPLETE THE FOLLOWING SUMMARY AT THE END OF MONITORING

Territory: X Occupied _____ Unoccupied _____ Unknown

Nest: X Active _____ Inactive _____ Unknown GPS Lat/Long: _____

Outcome: 1 # Chicks 1 # Fledged young _____ Nesting attempt failed _____ Unknown

Nest condition at end of season: _____ New nest X Intact _____ Not intact _____ Unknown

Photographs: _____ Yes X No (We would appreciate any photographs)

Possible Threats/disturbances to nest site and associated habitat: (describe in detail)

Outcome Comments (i.e. suspected cause of failure):

Bald Eagle Nest Survey Form

Ideally, the nest should be checked two to three times, once in late March to determine if bald eagles are using the nest, once in early June to count the number of nestlings (this check is the least important), and once in late June just before fledging. Nest checks after major storms could also be useful. Choose a spot where you can see the nest well, but far enough away that you do not disturb the parents. If they are circling overhead or "barking" at you, you are too close, and you may cause the parents to abandon the nest site or the young to fledge too early. After the family has left in late August, try to make a final visit to the nest tree to take a GPS location and identify any food remains under the nest. Approach the nest only after the birds have gone and only if you have express landowner permission to be on the property.
The most important information is: **Is the site occupied by a pair of eagles? Did the pair attempt to nest? How many young survived to fledge from the nest?**

Thank you very much for your help. If you have any questions, please feel free to call Corey Huxoll at 605-773-4195. Please return the completed survey forms to **Corey Huxoll, SD Game, Fish & Parks, 523 East Capitol Ave. Pierre, SD 57501.** E-mail: Corey.Huxoll@state.sd.us

Site Name: Lake Alice County: Deuel Year: 2017

Location/Directions: ¼ mile N of Lake Alice to the north of 172nd Street; E of 478th Avenue

Legal Description: T 117N R 48W Section 31 1/4 SW 1/4 _____

Contact/Landowner: Terry Brandenburg Phone: _____

	Observation Time		# Eagles		Nesting Activity/Comments	
Date	Start	End	Adults	Young	Courtship, incubation, hatching, fledged young, nest destroyed, etc.	Observer
6/9/17	9:30am	9:45am	1	3		Behnke
6/21/17	10:00am	10:10am	0	3		Behnke

PLEASE COMPLETE THE FOLLOWING SUMMARY AT THE END OF MONITORING

Territory: X Occupied ____ Unoccupied ____ Unknown

Nest: X Active ____ Inactive ____ Unknown GPS Lat/Long: _____

Outcome: ____ # Chicks 3 # Fledged young ____ Nesting attempt failed ____ Unknown

Nest condition at end of season: ____ New nest X Intact ____ Not intact ____ Unknown

Photographs: ____ Yes X No (We would appreciate any photographs)

Possible Threats/disturbances to nest site and associated habitat: (describe in detail)

Outcome Comments (i.e. suspected cause of failure):

Bald Eagle Nest Survey Form

Ideally, the nest should be checked two to three times, once in late March to determine if bald eagles are using the nest, once in early June to count the number of nestlings (this check is the least important), and once in late June just before fledging. Nest checks after major storms could also be useful. Choose a spot where you can see the nest well, but far enough away that you do not disturb the parents. If they are circling overhead or "barking" at you, you are too close, and you may cause the parents to abandon the nest site or the young to fledge too early. After the family has left in late August, try to make a final visit to the nest tree to take a GPS location and identify any food remains under the nest. Approach the nest only after the birds have gone and only if you have express landowner permission to be on the property.
The most important information is: **Is the site occupied by a pair of eagles? Did the pair attempt to nest? How many young survived to fledge from the nest?**

Thank you very much for your help. If you have any questions, please feel free to call Corey Huxoll at 605-773-4195. Please return the completed survey forms to **Corey Huxoll, SD Game, Fish & Parks, 523 East Capitol Ave. Pierre, SD 57501.** E-mail: Corey.Huxoll@state.sd.us

Site Name: Lake Alice County: Deuel Year: 2018

Location/Directions: ¼ mile N of Lake Alice to the north of 172nd Street; E of 478th Avenue

Legal Description: T 117 R 48 Section 31 1/4 SW 1/4 _____

Contact/Landowner: Terry Brandenburg Trust Phone: _____

	Observation Time		# Eagles		Nesting Activity/Comments	
Date	Start	End	Adults	Young	Courtship, incubation, hatching, fledged young, nest destroyed, etc.	Observer
5/17/18	11:00am	11:05am	1	2		Behnke
6/12/18	1:30pm	1:35pm	1	2		Behnke
7/12/18	3:00pm	3:10pm	0	2		Behnke

PLEASE COMPLETE THE FOLLOWING SUMMARY AT THE END OF MONITORING

Territory: X Occupied ____ Unoccupied ____ Unknown

Nest: X Active ____ Inactive ____ Unknown GPS Lat/Long: _____

Outcome: ____ # Chicks 2 # Fledged young ____ Nesting attempt failed ____ Unknown

Nest condition at end of season: ____ New nest X Intact ____ Not intact ____ Unknown

Photographs: ____ Yes X No (We would appreciate any photographs)

Possible Threats/disturbances to nest site and associated habitat: (describe in detail)

Outcome Comments (i.e. suspected cause of failure):