

**APPENDIX B – AGENCY CORRESPONDENCE**



## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

Ecological Services  
420 South Garfield Avenue, Suite 400  
Pierre, South Dakota 57501-5408



August 16, 2016

Ms. Kristen Chodachek  
WEST – Environmental and Statistical Consultants  
4007 State Street, Suite 109  
Bismarck, North Dakota 58503

Re: Proposed Wind Energy Project, Deuel  
County, South Dakota

Dear Ms. Chodachek:

This letter is in response to your June 20, 2016, letter requesting species and habitat information relative to the development of a wind energy facility in Deuel County, South Dakota. Your attached map indicates two potential areas that are currently being evaluated: one with a southern border located approximately 6 miles northwest of the town of Clear Lake, and the other with a northern border located 1 mile south of Clear Lake.

Per our August 12, 2016, conference call regarding this project, it is our understanding that while only one of the proposed sites may be chosen for development of the current project, the other may be developed at a later date, and efforts to obtain landowner leases are still ongoing.

Additionally, surveys of habitat types, bats, and birds were initiated earlier this year in areas where permission to access was obtained, and will continue into 2017, following our agency's existing guidance (*Land Based Wind Energy Guidelines*, *Eagle Conservation Plan Guidelines*, and *2015 Range-wide Indiana Bat Summer Survey Guidelines* (for northern long-eared bat)).

You have also initiated coordination with Natoma Hansen at our Madison Wetland Management District regarding U.S. Fish and Wildlife Service (Service) land interests in the two project areas, and we encourage continued contact with that office, as well as ours, as project activities progress.

Herein we provide additional information relevant to the development of wind energy in South Dakota.

#### **FEDERALLY LISTED SPECIES**

Your June 20, 2016, letter specifically requests federally listed species information. In accordance with section 7(c) of the Endangered Species Act (ESA), as amended, 16 U.S.C. 1531

et seq., we have determined that the following federally listed species may occur in the project area (this list is considered valid for 90 days):

<u>Species</u>	<u>Status</u>	<u>Expected Occurrence</u>
Dakota Skipper ( <i>Hesperia dactotae</i> )	Threatened	Resident in native prairie, northeastern SD
Northern Long-eared Bat ( <i>Myotis septentrionalis</i> )	Threatened	Summer resident, seasonal migrant, known winter resident in Black Hills
Poweshiek Skipperling ( <i>Oarisma poweshiek</i> )	Endangered	Possible resident in native prairie, northeastern SD
Rufa Red Knot ( <i>Calidris canutus rufa</i> )	Threatened	Rare seasonal migrant
Topeka Shiner ( <i>Notropis topeka</i> )	Endangered	Resident

#### **Dakota Skipper**

The Dakota skipper is a small prairie butterfly listed as a threatened species under the Endangered Species Act (see: <http://www.gpo.gov/fdsys/pkg/FR-2014-10-24/pdf/2014-25190.pdf>). Dakota skippers are obligate residents of high quality prairie ranging from wet-mesic tallgrass prairie to dry-mesic mixed grass prairie. In northeastern South Dakota, Dakota skippers inhabit dry-mesic hill prairies with abundant purple coneflower (*Echinacea angustifolia*), but also use mesic to wet-mesic tallgrass prairie habitats characterized by wood lily (*Lilium philadelphicum*) and mountain death camas (smooth camas; *Zigadenus elegans*). Their dispersal ability is very limited due in part to their short adult life span and single annual flight. Extirpation from a site may be permanent unless it occurs within about 0.6 miles of an inhabited site that generates a sufficient number of emigrants. Avoidance of impacts to native prairie habitat is recommended to reduce the risk of adverse effects to this species. Critical habitat has been designated for this species in South Dakota (<http://www.fws.gov/Midwest/endangered/insects/dask/index.html>) and per our August 12, 2016, conference call, you are aware of the locations of critical habitat sites for this species within the vicinity of the proposed project areas. While the two project sites do not currently encompass designated critical habitat, you have indicated you are aware of historic locations of this species within current project boundaries. We recommend evaluation of existing grasslands within the proposed project boundaries for the presence of Dakota skippers, and subsequent avoidance of any potentially occupied habitat.

#### **Northern Long-eared Bat**

The northern long-eared bat is a medium-sized brown bat listed as threatened under the Endangered Species Act. Northern long-eared bats are known to be present in South Dakota during the summer months, primarily roosting singly or in colonies underneath bark, in cavities or in crevices of both live and dead trees. Some hibernacula have been documented in

caves/mines in the Black Hills, and the species has been documented in other forested areas in the state during the summer months as well as along the Missouri River during migration. White nose syndrome - a fungus affecting hibernating bats - is considered a significant threat to this species, but individuals may be harmed by other activities such as modifications to hibernacula, timber harvest, human disturbance, and collisions with wind turbines. Currently, feathering turbine blades and increasing cut-in speeds beyond manufacturer rates are recommended measures to reduce the risk of bat mortality at wind generation facilities. A 4(d) rule has been published that exempts take of Northern long-eared bats in certain circumstances (see: <https://www.fws.gov/Midwest/Endangered/mammals/nleb/index.html>). Per our aforementioned call, you have initiated both acoustic and mist-net surveys to determine the presence of northern long-eared bats in the proposed project areas, adhering to our *2015 Range-wide Indiana Bat Summer Survey Guidelines*; we look forward to reviewing the results of those surveys.

#### **Poweshiek Skipperling**

The Poweshiek skipperling is a small prairie butterfly listed as endangered under the Endangered Species Act (see: <http://www.gpo.gov/fdsys/pkg/FR-2014-10-24/pdf/2014-25190.pdf>). The habitat of Poweshiek skipperlings includes prairie fens, grassy lake and stream margins, moist meadows, and wet-mesic to dry tallgrass prairie. Preferred nectar plants for adult Poweshieks include smooth ox-eye (*Helianthus helianthoides*) and purple coneflower (*Echinacea angustifolia*), but they also use stiff tickseed (*Coreopsis palmate*), black-eyed susan (*Rudbeckia hirta*), and palespike lobelia (*Lobelia spicata*). Larval food plants are assumed to include spike-rush, sedges, prairie dropseed (*Sporobolus heterolepis*) and little bluestem (*Schizachyrium scoparium*). Poweshiek skipperlings have one flight per year from about the middle of June through the end of July (depending upon weather). They have a low dispersal capability, and may not cross areas that are not structurally similar to native prairies. Extirpation from fragmented and isolated prairie remnants may be permanent unless it occurs within about 0.6 miles of an inhabited site that generates a sufficient number of emigrants. They are vulnerable to extreme weather conditions, dormant season fire, and other disturbances (e.g., intense cattle grazing). Avoidance of impacts to native prairie habitat is recommended to reduce the risk of adverse effects to this species. As with the Dakota skipper above, critical habitat has been designated for this species in South Dakota (<http://www.fws.gov/midwest/endangered/insects/dask/finalch.html>) and the current proposed project areas do not encompass Poweshiek skipperling critical habitat. However, since historic locations of the species exist within project boundaries, we recommend evaluation of existing grasslands for the current presence of Poweshiek skipperlings, and subsequent avoidance of any potential habitat.

#### **Rufa Red Knot**

The rufa red knot is a robin-sized shorebird listed as threatened under the Endangered Species Act (<http://www.gpo.gov/fdsys/pkg/FR-2014-12-11/pdf/2014-28338.pdf>). The red knot migrates annually between its breeding grounds in the Canadian Arctic and several wintering regions, including the Southeast United States, the Northeast Gulf of Mexico, northern Brazil, and Tierra del Fuego at the southern tip of South America. Although it is primarily a coastal species, small numbers of rufa red knots are reported annually across the interior United States (i.e., greater than 25 miles from the Gulf or Atlantic Coasts) during spring and fall migration. These reported sightings are concentrated along the Great Lakes, but multiple reports have been made from

nearly every interior State, including South Dakota. The red knot likely uses South Dakota habitats similar to those of the least tern and piping plover. The species does not breed in this state.

#### **Topeka Shiner**

The Topeka shiner is a small prairie stream minnow occupying eastern South Dakota waterways. The species prefers pool habitats, in cool, clear waters, typically spawning over gravel substrates in the spring and summer; however they have been known to occupy suboptimal (somewhat degraded) habitats that reflect the current state of prairie streams in the agriculturally-dominated landscape comprising their range. In Deuel County, Hidewood Creek, Peg Munky Run, North Deer Creek, and Sixmile Creek are known occupied streams; any tributaries of these should also be considered potentially occupied. Any activities that may impact these waterways have the potential to affect the Topeka shiner; we recommend complete avoidance of these streams and their protective riparian habitat.

We did not discuss the existence of a federal nexus for this project during our August 12, 2016, conference call. If a federal agency ultimately funds, permits or authorizes this project, and that agency determines that the project "may adversely affect" listed species in South Dakota, it should request formal consultation from this office. If a "may affect - not likely to adversely affect" determination is made for this project, it should be submitted to this office for concurrence. If a "no effect" determination is made, further consultation may not be necessary; however, a copy of the determination should be sent to this office.

If no federal agency is involved with the proposed project and adverse impacts to federally listed species may occur, ESA compliance may be achieved by private entities via coordination with this office and development of a Habitat Conservation Plan (HCP). Our website provides more information on HCPs at: <http://www.fws.gov/endangered/what-we-do/hcp-overview.html>.

#### **EAGLES**

Golden eagles (*Aquila chrysaetos*) are year-round residents in western South Dakota, but may be found throughout the state. Bald eagles (*Haliaeetus leucocephalus*) occur throughout South Dakota in all seasons, and new nests are appearing each year. While ESA protection for the bald eagle has been removed, both species continue to be protected under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA). These laws protect eagles from a variety of harmful actions and impacts. Our agency has developed guidance for the public regarding means to avoid take of the eagle under these laws. The *National Bald Eagle Management Guidelines* are available online:

<http://www.fws.gov/northeast/ecologicalservices/eaglenationalguide.html>. We recommend reviewing these guidelines as they advise of circumstances where these laws may apply and assist in avoiding potential violations on future projects. Additionally, permit regulations have been published for eagles (Federal Register, Volume 74, No. 175, Friday, September 11, 2009). As you know, the Service developed *Eagle Conservation Plan Guidance* (ECP), and it is our understanding that you are utilizing this guidance relative to preconstruction surveys. The ECP provides interpretive information in applying the regulatory permit standards as specified by the BGEPA and other federal laws, and facilitates the process of obtaining an eagle take permit.

Should the developer wish to pursue an eagle take permit for this wind facility, we can assist with this process and provide additional guidance (specific to this Region (6) of the Service) regarding the development of ECPs.

## **WETLANDS**

According to National Wetlands Inventory maps (available online at <http://wetlands.fws.gov/>), wetlands exist within the proposed project area. If a project may impact wetlands or other important fish and wildlife habitats, the Service, in accordance with the National Environmental Policy Act of 1969 (42 U.S.C. 4321-4347) and other environmental laws and rules, recommends complete avoidance of these areas, if possible; then minimization of any adverse impacts; and finally, replacement of any lost acres; in that order. Alternatives should be examined and the least damaging practical alternative selected. If wetland impacts are unavoidable, a mitigation plan addressing the number and types of wetland acres to be impacted and the methods of replacement should be prepared and submitted to the resource agencies for review.

## **AVIAN ISSUES**

### **Birds of Conservation Concern and other Grassland Birds**

The Migratory Birds Division of the Service has published *Birds of Conservation Concern 2008*, which may be found online at:

<https://www.fws.gov/migratorybirds/pdf/grants/BirdsofConservationConcern2008.pdf>. This document is intended to identify species in need of coordinated and proactive conservation efforts among State, Federal, and private entities with the goals of precluding future evaluation of these species for ESA protections and promoting/conserving long-term avian diversity. Primary threats impacting grassland species that occur in South Dakota are habitat loss and fragmentation. The areas proposed for construction of this wind development have the potential to harbor areas of intact grassland with associated wetlands - valuable habitats for prairie birds. In accordance with Executive Order 13186 regarding migratory bird protection, we recommend avoidance, minimization, and finally compensation to reduce the impacts to avian species protected by the MBTA. Compliance with this law may be partially addressed in a Bird and Bat Conservation Strategy (BBCS) (identified within our *Land-Based Wind Energy Guidance*). However, a separate mitigation plan that specifically addresses direct and indirect take of birds during and after construction is also recommended, particularly if impacts occur within intact native grasslands. Some species of grassland nesting birds are known to exhibit avoidance behavior relative to wind turbines on the prairie landscape, out to a distance of 300 m or more (Shaffer and Buhl 2015), which equates to an area approximately 70 acres in size around each turbine. If prairie habitat impacts are unavoidable, we recommend implementing offsetting measures for this impact, such as prairie restoration, establishment of easements, or purchase of fee title lands. We can provide further guidance in this regard if the project progresses.

### **Meteorological Towers**

Meteorological towers constructed in association with wind turbines are often similar in design to typical communication towers: tall, lighted, lattice structured, and guyed. Of primary concern are the collision mortality risks posed to migratory birds as towers are currently estimated to kill 6.8 million birds per year in the United States and Canada (Longcore et al. 2012). We have

enclosed Service guidance on this issue, our 2013 U.S. Fish and Wildlife Service (USFWS) *Revised Voluntary Guidelines for Communication Tower Design, Siting, Construction, Operation, Retrofitting, and Decommissioning*. Among the primary concerns addressed within our guidelines are the establishment of new towers on the landscape, the heights of these towers, their lighting scheme, and means of structural support. Collocation of communications tower facilities on an existing structure is strongly recommended to avoid any additional impacts to migratory birds. If a new tower is necessary, placement of the new tower near other existing structures is recommended to concentrate the risk posed by the towers to relatively small areas. Minimization of tower height (below 200 feet to preclude the need for Federal Aviation Administration lighting requirements), use of only strobe or flashing lights (no steady-burning lights), and avoidance of guy wires (a great deal of avian mortality is a result of collisions with supporting guy wires) are important components intended to minimize potential impacts to migratory birds.

#### **Power Lines**

The construction of additional overhead power lines associated with wind farms creates the threat of avian electrocution, particularly for raptors. Thousands of these birds, including endangered species, are killed annually as they attempt to utilize overhead power lines as nesting, hunting, resting, feeding, and sunning sites. The Service recommends the installation of underground, rather than overhead, power lines whenever possible/appropriate to minimize environmental disturbances. For all new overhead lines or modernization of old overhead lines, we recommend incorporating measures to prevent avian electrocutions. The publication entitled *Suggested Practices for Avian Protection on Power Lines - The State of the Art in 2006* has many good suggestions including pole extensions, modified positioning of live phase conductors and ground wires, placement of perch guards and elevated perches, elimination of cross arms, use of wood (not metal) braces, and installation of various insulating covers. You may obtain this publication by contacting the Edison Electric Institute via their website at: <http://www.eei.org/resourcesandmedia/products/Pages/products.aspx>, or by calling 202-508-5000.

Please note that utilizing just one of the "Suggested Practices . . ." methods may not entirely remove the threat of electrocution to raptors. In fact, improper use of some methods may increase electrocution mortality. Perch guards, for example, may be only partially effective as some birds may still attempt to perch on structures with misplaced or small-sized guards and suffer electrocution as they approach too close to conducting materials. Among the most dangerous structures to raptors are poles that are located at a crossing of two or more lines, exposed above-ground transformers, or dead end poles. Numerous hot and neutral lines at these sites, combined with inadequate spacing between conductors, increase the threat of raptor electrocutions. Perch guards placed on other poles has, in some cases, served to actually shift birds to these more dangerous sites, increasing the number of mortalities. Thus, it may be necessary to utilize other methods or combine methods to achieve the best results. The same principles may be applied to substation structures.

Please also note that the spacing recommendation within the "Suggested Practices . . ." publication of at least 60 inches between conductors or features that cause grounding may not be protective of larger raptors such as eagles. This measure was based on the fact that the skin-to-

skin contact distance on these birds (i.e., talon to beak, wrist to wrist, etc.) is less than 60 inches. However, an adult eagle's wingspan (distance between feather tips) may vary from 66 to 96 inches depending on the species (golden or bald) and gender of the bird, and unfortunately, wet feathers in contact with conductors and/or grounding connections can result in a lethal electrical surge. Thus, the focus of the above precautionary measures should be to a) provide more than 96 inches of spacing between conductors or grounding features, b) insulate exposed conducting features so that contact will not cause raptor electrocution, and/or c) prevent raptors from perching on the poles in the first place.

Additional information regarding simple, effective ways to prevent raptor electrocutions on power lines is available in video form. *Raptors at Risk* may be obtained by contacting EDM International, Inc. at 4001 Automation Way, Fort Collins, Colorado 80525-3479, Telephone No. (970) 204-4001, or by visiting their website at: <http://www.edmlink.com/raptorvideo.htm>.

In addition to electrocution, overhead power lines also present the threat of avian line strike mortality. Particularly in situations where these lines are adjacent to wetlands or where waters exist on opposite sides of the lines, we recommend marking them in order to make them more visible to birds. For more information on bird strikes, please see *Reducing Avian Collisions with Power Lines: The State of the Art in 2012* which, again, may be obtained by contacting the Edison Electric Institute via their website at <http://www.eei.org/resourcesandmedia/products/Pages/products.aspx>, or by calling 202-508-5000.

#### **Bird and Bat Conservation Strategy**

Our *Land Based Wind Energy Guidelines* recommend development of a Bird and Bat Conservation Strategy. As with ECPs, we have developed Region 6 guidance to further assist companies in following our established national guidance on BBCSs – see enclosed Region 6 *Outline for a Bird and Bat Conservation Strategy: Wind Energy Projects*. As stated in the introduction of that document: a BBCS "...is a life-of-a-project framework for identifying and implementing actions to conserve birds and bats during wind energy project planning, construction, operation, maintenance, and decommissioning. It is the responsibility of wind energy project developers and operators to effectively assess project-related impacts to birds, bats and their habitats, and to work to avoid and minimize those impacts." A BBCS explains the actions taken by developers as they progress through the tiers of our *Land-Based Wind Energy Guidelines*, describing the analyses, studies, and reasoning implemented with the purpose of mitigating for potential avian and bat impacts. It also addresses post-construction monitoring and habitat impacts. We recommend you develop a BBCS as this project progresses.

#### **Migratory Bird Treaty Act**

The Migratory Bird Treaty Act prohibits the taking, killing, possession, and transportation, (among other actions) of migratory birds, their eggs, parts, and nests, except when specifically permitted by regulations. While the MBTA has no provision for allowing unauthorized take, the Service realizes that some birds may be killed as a result of wind farm operations, even if all known reasonable and effective measures to protect birds are used. The Service's Office of Law Enforcement carries out its mission to protect migratory birds through investigations and enforcement, as well as by fostering relationships with individuals, companies, and industries



that have taken effective steps to avoid take of migratory birds and by encouraging others to implement measures to avoid take of migratory birds. It is not possible to absolve individuals, companies, or agencies from liability even if they implement bird mortality avoidance or other similar protective measures. However, the Office of Law Enforcement focuses its resources on investigating and prosecuting individuals and companies that take migratory birds without identifying and implementing all reasonable, prudent and effective measures to avoid that take. Companies are encouraged to work closely with Service biologists to identify available protective measures when developing project plans and/or avian protection plans, and to implement those measures prior to/during construction, operation, or similar activities.

## SUMMARY

Below we reiterate the items discussed above that are pertinent to the proposed project, any associated recommended guidance or related information and suggested actions.

- Wind farm guidance:
  - *Land-Based Wind Energy Guidelines*
    - *Bird and Bat Conservation Strategy*
      - *USFWS Region 6 Outline for a Bird and Bat Conservation Strategy: Wind Energy Projects*
- Service land interests:
  - Madison WMD
- Federally listed (ESA) species:
  - Dakota skipper
  - Northern long-eared bat
  - Poweshiek skipperling
  - Rufa red knot
  - Topeka shiner
- Eagles:
  - MBTA and BGEPA
  - *National Bald Eagle Management Guidelines*
  - *Eagle Conservation Plan Guidance*
- Wetlands
  - Avoid, minimize, compensate
- Migratory birds:
  - MBTA
  - *Birds of Conservation Concern 2008*
  - Mitigative/offsetting measures for avian habitat avoidance/loss
  - Meteorological Towers:
    - *2013 USFWS Revised Voluntary Guidelines for Communication Tower Design, Siting, Construction, Operation, Retrofitting, and*

*Decommissioning*

- Overhead Power Lines:
  - *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006*
  - *Raptors at Risk* video
  - *Reducing Avian Collisions with Power Lines: The State of the Art in 2012*

If changes are made in the project plans or operating criteria, or if additional information becomes available, the Service must be informed so that the above determinations can be reconsidered.

We appreciate the opportunity to provide comments on this project. If you have any questions on these comments, please contact Natalie Gates of this office at (605) 224-8693, Extension 227.

Sincerely,



Scott Larson  
Field Supervisor  
South Dakota Field Office

Enclosures

cc: Silka Kempema; South Dakota Department of Game, Fish and Parks, Pierre, SD

**LITERATURE CITED**

Longcore T, Rich C, Mineau P, MacDonald B, Bert DG, et al. (2012) An Estimate of Avian Mortality at Communication Towers in the United States and Canada. PLoS ONE 7(4): e34025. doi:10.1371/journal.pone.0034025.

Shaffer, J. A. and D. A. Buhl. 2015. Effects of wind-energy facilities on breeding grassland bird distributions. *Conservation Biology*, 30(1):59-71.

## Svedeman, Michael

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**From:** Kempema, Silka <Silka.Kempema@state.sd.us>  
**Sent:** Monday, August 15, 2016 10:30 AM  
**To:** 'Kristen Chodachek'; Giampoli, Andrea  
**Subject:** RE: a few Deuel Co, SD grouse lek locations

**Follow Up Flag:** Follow up  
**Flag Status:** Completed

Hi Kristen,

Regarding the wetland survey, I'm comfortable with a survey conducted next week given the amount of recent rainfall in the northeast and that the survey was initially scheduled for this week. I like your suggestion of a spring survey to follow-up to the fall survey. I'll still plan on talking with GFP staff regarding their recommendations to survey for wetlands to verify desktop assessments.

Yep, our permit coordinator confirmed with me that Jackson Env. had a SD SCP.

Silka

**From:** Kristen Chodachek [mailto:kchodachek@west-inc.com]  
**Sent:** Friday, August 12, 2016 11:59 AM  
**To:** Kempema, Silka  
**Subject:** Re: a few Deuel Co, SD grouse lek locations

Silka,

Thank you for following up with the grouse information. Please keep me posted on what your regional biologists suggest.

For wetlands surveying, I maybe should have clarified this is a mapping exercise to assist with turbine placement. Typically we evaluate this via a desktop assessment; however, with this effort we were planning to conduct a reconnaissance level site visit to verify the desktop assessment. Based on other states we have worked in, this has been acceptable. Please let me know what you hear back on this. As well, our tech who is currently onsite mentioned the area has received approximately 7 inches of rain in August, so the ground is very saturated and wetlands are holding water; not quite spring levels, but not your typical late summer levels. We are tentatively planning for the wetland reconnaissance visit next week. Do you think you will have a response before then? We can reschedule; however, our preference would be to continue with our currently planned efforts next week. Perhaps we could move forward with our current plans and evaluate any sheet water in the spring if needed since those wetlands are likely not holding water?

Regarding bat mist netting, we are using Jackson Environmental as our subcontractor. They informed me they have all of their ducks in a row for permitting requirements. Is this not the case? Can you please send along or direct me to where the SCP is so I can verify with Jackson.

Thanks again for taking the time to participate today. I greatly appreciate the feedback provided.

Enjoy your weekend!

Cheers,  
Kristen

**Kristen Chodachek**  
**Wildlife Biologist / Project Manager**



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On Fri, Aug 12, 2016 at 11:48 AM, Kempema, Silka <[Silka.Kempema@state.sd.us](mailto:Silka.Kempema@state.sd.us)> wrote:

Hi Kristen,

Known grouse lek locations:

point_x	point_y	species	year
690515	4961721	mixed	2009
4936310.59023	692733.54439	STG	2009
4962572.54506	688073.078082	STG	2009 or 2010

I found the shapefile with the proposed project boundaries. These leks are not within either project site.

I'll follow-up with any additional data on leks, thoughts on grouse habitat in the area, as well as surveying for wetlands in August.

Did you guys subcontract with someone to conduct the bat mist netting? We require a SCP for mistnetting and I didn't see a permit for Deuel Co for WEST. Clayton has one for Bon Homme, Charles Mix and Hutchison counties.

Regards,

**Silka Kempema** | Wildlife Biologist

South Dakota Dept. of Game, Fish and Parks

523 East Capitol Ave | Pierre, SD 57501

[605.773.2742](tel:605.773.2742) | <http://gfp.sd.gov>



## Svedeman, Michael

---

**From:** Gates, Natalie <natalie\_gates@fws.gov>  
**Sent:** Friday, August 12, 2016 10:27 AM  
**To:** Kristen Chodachek  
**Cc:** Giampoli, Andrea; Svedeman, Michael; Silka L. F. Kempema  
**Subject:** Re: Deuel County Project Meeting  
**Attachments:** Shaffer and Buhl 2015 - effects of wind energy on grassland birds.pdf

All, attached is the paper I mentioned on migratory bird avoidance of wind turbines - the distance is out to 300m and beyond for some spp, equating to an area of about 70 acres per turbine (if you drew a circle of 300 m around one).

We recommend offsets for this indirect impact to migratory birds should any turbines be placed in grasslands, but highly encourage avoidance of grasslands as much as possible.

Thank you again for today's call/presentation.

-Natalie

*Natalie Gates, U.S. Fish and Wildlife Service  
Ecological Services South Dakota Field Office  
420 South Garfield Avenue, Suite 400  
Pierre, South Dakota 57501  
Phone: 605-224-8693, Ext. 227; Fax: 605-224-9974  
<http://www.fws.gov/southdakotafieldoffice/>*

On Tue, Aug 2, 2016 at 4:45 PM, Kristen Chodachek <[kchodachek@west-inc.com](mailto:kchodachek@west-inc.com)> wrote:

Hello,

Please see below for the information for the Deuel County Project Meeting. Please note the meeting is schedule for 10am to 12pm (not am):

### **Deuel County Wind Project Meeting**

Fri, Aug 12, 2016 10:00 AM - 12:00 AM Central Daylight Time

Please join my meeting from your computer, tablet or smartphone.

<https://global.gotomeeting.com/join/899861205>

### **You can also dial in using your phone.**

United States : [+1 \(408\) 650-3123](tel:+14086503123)

Access Code: 899-861-205

First GoToMeeting? Try a test session: <http://help.citrix.com/getready>

Please let me know if you cannot access gotomeeting. Thank you.

Cheers,  
Kristen

**Kristen Chodachek**  
**Wildlife Biologist / Project Manager**



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## Svedeman, Michael

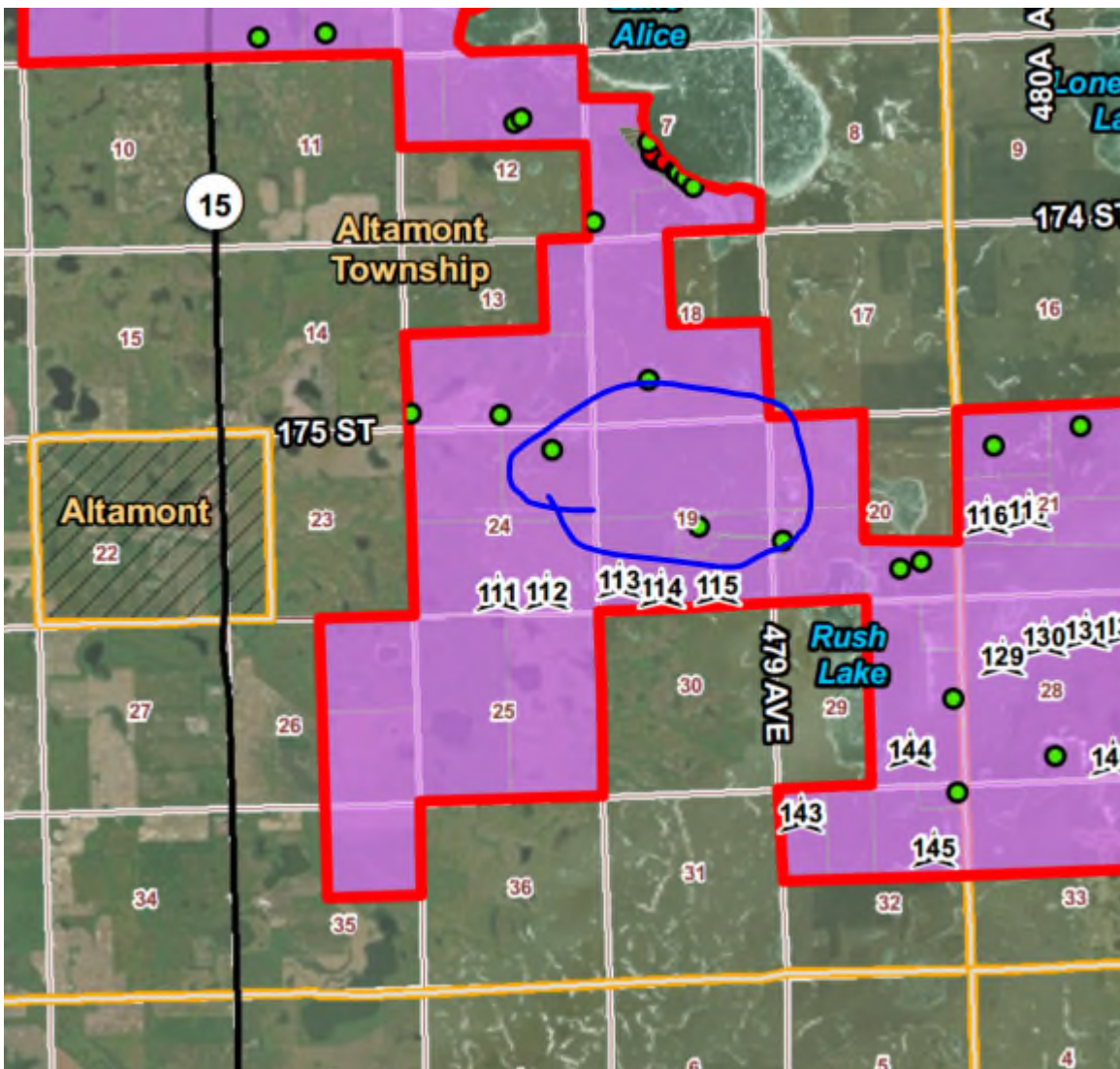
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**From:** Svedeman, Michael  
**Sent:** Wednesday, March 14, 2018 11:26 AM  
**To:** 'Hansen, Natoma'; 'rebecca\_kludt@fws.gov'  
**Subject:** RE: Deuel Harvest Project - Wetland Easements

**Categories:** Green Category

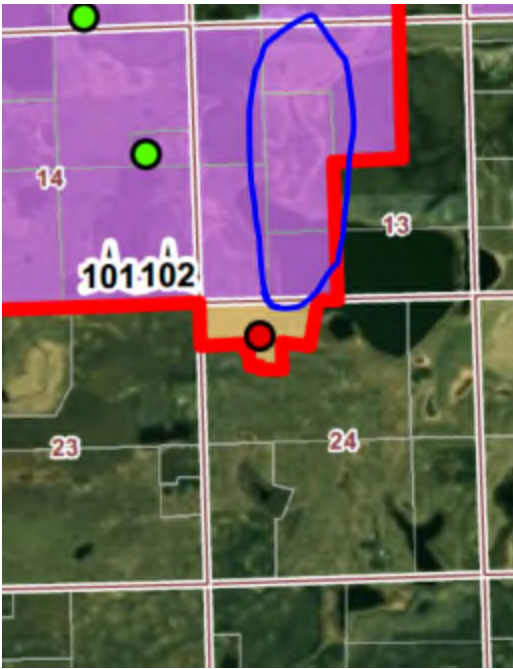
Hi Natoma and Becky,

Does this help clarify? These are the two areas I was looking for. I did have a typo as the second one, but am showing the 116-49-19 area as within our project area. Let me know if you need any further clarification.



I had a typo and meant 113-47-13 instead of 114-47-13. That area is depicted in a screenshot below.





Thanks,

**Michael Svedeman** | Manager, Project Development  
**Invenergy** | One South Wacker Drive, Suite 1800, Chicago, IL 60606  
[msvedeman@invenergyllc.com](mailto:msvedeman@invenergyllc.com) | D 312-582-1549 | C 214-927-3213

**From:** Hansen, Natoma <natoma\_hansen@fws.gov>  
**Sent:** Wednesday, March 14, 2018 10:03 AM  
**To:** Svedeman, Michael <MSvedeman@invenergyllc.com>  
**Subject:** Fwd: Deuel Harvest Project - Wetland Easements

Mike please see Becca note below.

Natoma (Tomi) Hansen  
Project Leader  
USFWS Madison WMD  
605-636-3869 Direct Office Line  
605-256-2974 General Office  
605-251-8119 Cell

----- Forwarded message -----

**From:** Kludt, Rebecca <[rebecca\\_kludt@fws.gov](mailto:rebecca_kludt@fws.gov)>  
**Date:** Wed, Mar 14, 2018 at 10:17 AM  
**Subject:** Re: Deuel Harvest Project - Wetland Easements  
**To:** "Hansen, Natoma" <[natoma\\_hansen@fws.gov](mailto:natoma_hansen@fws.gov)>

Can you verify that they need shapefiles for the following sections.

- 116-49-19
- 114-47-13

These are both outside of the project area.

Thanks,

Becca Kludt  
Biological Technician  
US Fish & Wildlife Service  
23520 HWY 19  
Madison, SD 57042  
[rebecca\\_kludt@fws.gov](mailto:rebecca_kludt@fws.gov)  
Direct Line: 605-636-3882  
Cell: 320-469-3795  
Fax: 605-256-9432

On Wed, Mar 14, 2018 at 9:22 AM, Hansen, Natoma <[natoma\\_hansen@fws.gov](mailto:natoma_hansen@fws.gov)> wrote:

Natoma (Tomi) Hansen  
Project Leader  
USFWS Madison WMD  
605-636-3869 Direct Office Line  
605-256-2974 General Office  
605-251-8119 Cell

----- Forwarded message -----

From: **Svedeman, Michael** <[MSvedeman@invenergyllc.com](mailto:MSvedeman@invenergyllc.com)>  
Date: Tue, Mar 13, 2018 at 4:37 PM  
Subject: Deuel Harvest Project - Wetland Easements  
To: "Hansen, Natoma" <[natoma\\_hansen@fws.gov](mailto:natoma_hansen@fws.gov)>

Hi Natoma,

Thanks again for taking the time to meet last week. Below is a summary of the sections we would be interested in seeing what FWS interests have been digitized from the wetland easements in the area. Fully understanding that these are subject to change based on field evaluation, and merely interpretations of the depictions from the easements.

**Deuel Harvest North:**

Section	Township
12, 14, 15, 16, 24, 27	Portland (117N-49W)
1, 2, 12, 19	Altamont (116N-49W)
27, 28	Lowe (117N-48W)
22, 28, 36	Glenwood (116N-48W)

**Deuel Harvest South:**

Section	Township
32	Norden (114N-48W)
13	Norden (114N-47W)
3	Scandinavia (113N-48W)

Thanks!

**Michael Svedeman** | Manager, Project Development

**Invenergy** | One South Wacker Drive, Suite 1800, Chicago, IL 60606

[msvedeman@invenergyllc.com](mailto:msvedeman@invenergyllc.com) | D 312-582-1549 | C 214-927-3213

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## Svedeman, Michael

---

**From:** Gates, Natalie <natalie\_gates@fws.gov>  
**Sent:** Tuesday, February 13, 2018 2:39 PM  
**To:** Giampoli, Andrea  
**Cc:** Kempema, Silka; Murphy, Leslie; Svedeman, Michael; Gasper, Bryan R.; Aquilino, John  
**Subject:** Re: Deuel Harvest Wind Environmental Discussion  
**Attachments:** Loesch et al 2013 - wind and breeding waterfowl densities in prairie potholes.pdf; Loesch et al powerpoint on 2013 pub - compensation for duck avoidance of turbines Sept 2017.ppt; Shaffer and Buhl 2016 - effects of wind energy on grassland birds.pdf; Shaffer\_Buhl\_MethodforEstimatingImpact.9.14.2017.ppt

**Follow Up Flag:** Flag for follow up

**Flag Status:** Flagged

Hi Everyone,

Per our meeting this afternoon, I think I've forwarded the Shaffer/Buhl paper about grassland bird avoidance of turbines before - not so sure about the Loesch et al 2013 paper (waterfowl avoidance). Both are attached below, as well as powerpoints by the authors regarding means to determine offsets.

These studies are highly relevant, local, robust and represent the best science we've got on this indirect impact. This is standard information we provide to all wind developers in SD.

Thank you.

-Natalie

*Natalie Gates / U.S. Fish and Wildlife Service / Ecological Services South Dakota Field Office  
420 South Garfield Avenue, Suite 400 / Pierre, South Dakota 57501  
Phone: 605-224-8693, Ext. 227 / Fax: 605-224-9974 or 605-224-1416  
<http://www.fws.gov/southdakotafieldoffice/>*

On Tue, Feb 6, 2018 at 9:15 PM, Giampoli, Andrea <[AGiampoli@invenergyllc.com](mailto:AGiampoli@invenergyllc.com)> wrote:

.....  
[→ Join Skype Meeting](#)

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Join by phone

8558527677 "UNITED STATES", access code: 5821779 (Region)

4044104505 "UNITED STATES", access code: 5821779 (Region)

8558527677 "CANADA", access code: 5821779 (Region)

08004960493 "UNITED KINGDOM", access code: 5821779 (Region)

5547772325 "MEXICO", access code: 5821779 (Region)

00531160543 "JAPAN", access code: 5821779 (Region)

008001124351 "POLAND", access code: 5821779 (Region)

8006864 "EL SALVADOR", access code: 5821779 (Region)

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## Svedeman, Michael

---

**From:** Giampoli, Andrea  
**Sent:** Thursday, February 15, 2018 3:43 PM  
**To:** 'Kempema, Silka'  
**Cc:** Murphy, Leslie; Natalie\_Gates@fws.gov; Svedeman, Michael  
**Subject:** RE: project boundary shapefiles  
**Attachments:** North\_Deuel\_Project\_Boundary\_20180110.zip; South\_Deuel\_Project\_Boundary\_20180110.zip

Hi Silka,

I've attached the shape files. Please let me know if you have any questions. Please treat this information as confidential business information.

Thank you,

Andrea

**Andrea Giampoli** | Environmental and Wildlife Permitting Manager  
**Invenergy LLC** | One South Wacker Drive, Suite 1800, Chicago, IL 60606  
[agiampoli@invenergyllc.com](mailto:agiampoli@invenergyllc.com) | 312-582-1779

---

**From:** Kempema, Silka [mailto:Silka.Kempema@state.sd.us]  
**Sent:** Tuesday, February 13, 2018 4:46 PM  
**To:** Giampoli, Andrea <AGiampoli@invenergyllc.com>  
**Cc:** Murphy, Leslie <Leslie.Murphy@state.sd.us>; Natalie\_Gates@fws.gov  
**Subject:** project boundary shapefiles

Hi Andrea,

Would it be possible to get a copy of the most recent Deuel N and S boundaries as a shapefile?

**Silka Kempema** | *Wildlife Biologist*  
South Dakota Game, Fish and Parks  
523 East Capitol Avenue | Pierre, SD 57501  
605.773.2742 | <https://gfp.sd.gov>



## Svedeman, Michael

---

**From:** Svedeman, Michael  
**Sent:** Thursday, February 1, 2018 1:28 PM  
**To:** Hansen, Natoma; Giampoli, Andrea  
**Subject:** RE: Shapefile of Deuel Harvest Wind Project  
**Attachments:** Deuel Project Boundaries 1-10-2018\_1 mi buffer.zip

Hi Natoma,

Those boundaries are attached.

Thanks,

**Michael Svedeman** | Manager, Project Development  
**Invenergy** | One South Wacker Drive, Suite 1800, Chicago, IL 60606  
[msvedeman@invenergyllc.com](mailto:msvedeman@invenergyllc.com) | D 312-582-1549 | C 214-927-3213

**From:** Hansen, Natoma [mailto:natoma\_hansen@fws.gov]  
**Sent:** Thursday, February 1, 2018 2:03 PM  
**To:** Giampoli, Andrea <AGiampoli@invenergyllc.com>  
**Cc:** Svedeman, Michael <MSvedeman@invenergyllc.com>  
**Subject:** Shapefile of Deuel Harvest Wind Project

Andrea,

Can you send me a shapefile of the Deuel Harvest wind project boundary so I can get you an updated easement layer and map as discussed on Tuesday. Thanks

Natoma

Natoma (Tomi) Hansen  
Project Leader  
USFWS Madison WMD  
605-636-3869 Direct Office Line  
605-256-2974 General Office  
605-251-8119 Cell

## Svedeman, Michael

---

**From:** Hansen, Natoma <natoma\_hansen@fws.gov>  
**Sent:** Monday, October 3, 2016 8:23 AM  
**To:** Giampoli, Andrea  
**Cc:** Noel Matson  
**Subject:** Re: USFWS Easements - Deuel County  
**Attachments:** Map.pdf

**Follow Up Flag:** Follow up  
**Flag Status:** Completed

Andrea,

Sorry about that. We do have a very active easement program in Deuel County. I don't have a fancy map I can provide right now since new easements are not entered into our GIS database yet. We update our layer every year and that will happen this fall. Even with that sometimes there is a lag. Please refer to the attached Map. The areas identified in red are areas we are actively working in. Some have recently signed easements, some have been made offers but might not have signed yet and some will be made offers in the near future. However, I believe I have marked all areas we have evaluated for an easement offer in the project area. I included Noel Matson, our Realty Specialist out of Huron in this email. He would have the most up to date information in regards to signed easements.

If you need more specific information I can track it down for you.

Thanks

Natoma (Tomi) Hansen  
Project Leader  
USFWS Madison WMD  
605-636-3869 Direct Office Line  
605-256-2974 General Office  
605-251-8119 Cell

On Thu, Sep 29, 2016 at 11:33 AM, Giampoli, Andrea <[AGiampoli@invenergyllc.com](mailto:AGiampoli@invenergyllc.com)> wrote:

Hi Natoma,

I hope you're doing well! In conversations with our landowners, it seems that some may have recently signed conservation easement agreements, so we want to make sure that we have the most up-to-date data to help us avoid those areas, if possible. Could you send us data for any USFWS easements in the following townships:

Deuel County, Townships:

117N049W



117N048W

116N049W

116N048W

116N047W

We really appreciate your help.

Kindly,

Andrea

Andrea M. Giampoli | Environmental and Wildlife Permitting Manager

Invenergy LLC | One South Wacker Drive, Suite 1800, Chicago, IL 60606

[agiampoli@invenergyllc.com](mailto:agiampoli@invenergyllc.com) | 312-582-1779

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## Giampoli, Andrea

---

**From:** Gates, Natalie <natalie\_gates@fws.gov>  
**Sent:** Friday, June 30, 2017 7:12 AM  
**To:** Giampoli, Andrea  
**Subject:** Re: Deuel County Site Visit

Sure, and thank you for your time as well. I was less worried about wind than incoming storms(!), but they never really materialized in my area.

Happy 4th!

-Natalie

*Natalie Gates, U.S. Fish and Wildlife Service  
Ecological Services South Dakota Field Office  
420 South Garfield Avenue, Suite 400  
Pierre, South Dakota 57501  
Phone: 605-224-8693, Ext. 227; Fax: 605-224-9974  
<http://www.fws.gov/southdakotafieldoffice/>*

On Wed, Jun 28, 2017 at 1:44 PM, Giampoli, Andrea <[AGiampoli@invenergyllc.com](mailto:AGiampoli@invenergyllc.com)> wrote:

Hi Natalie and Silka,

Natalie – I just want to thank you again for coming out to the site yesterday. I hope you made it home safely in all that wind. We appreciate you taking the time to visit us.

Silka – I hope you're feeling better and catching up after last week.

I hope you both have a happy holiday week next week!

Kindly,

Andrea

**Andrea Giampoli** | Environmental and Wildlife Permitting Manager

**Invenergy LLC** | One South Wacker Drive, Suite 1800, Chicago, IL 60606

agiampoli@invergyllc.com | 312-582-1779

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**ENVIRONMENTAL & STATISTICAL CONSULTANTS**

4007 State Street, Suite 109, Bismarck, ND 58503  
Phone: 701-250-1756 ♦ www.west-inc.com ♦ Fax: 701-250-1761

May 20, 2016

U.S. Fish & Wildlife Service  
South Dakota Ecological Services Field Office  
420 South Garfield Avenue, Suite 400  
Pierre, South Dakota 57501-5408  
(605) 224-8693

Subject: Proposed Wind Energy Project,  
Deuel County, South Dakota  
Sensitive Species/Sensitive Habitat Review Request

To Whom It May Concern:

One of our clients is evaluating the feasibility of developing a wind energy project in Deuel County, South Dakota (see attached map). The wind energy facility is in the early stage of development so specific attributes (i.e. project size, turbine types, etc.) and construction dates are yet unknown.

Please review the proposed project areas and surrounding areas and provide us with any information about listed, proposed, and candidate species (including plants) or sensitive environmental areas that may be in or near the project area. If your review indicates that threatened and endangered species may inhabit the areas near the project, please provide detailed location and life history information for each species. This information will be treated as confidential and will be used for project purposes only. Please also treat the enclosed information as confidential and not for distribution.

Thank you for your assistance. If you have any questions or require additional information, please feel free to call me at 701-250-1756.

Sincerely,

Kristen Chodachek  
Project Manager



**ENVIRONMENTAL & STATISTICAL CONSULTANTS**

4007 State Street, Suite 109, Bismarck, ND 58503  
Phone: 701-250-1756 ♦ www.west-inc.com ♦ Fax: 701-250-1761

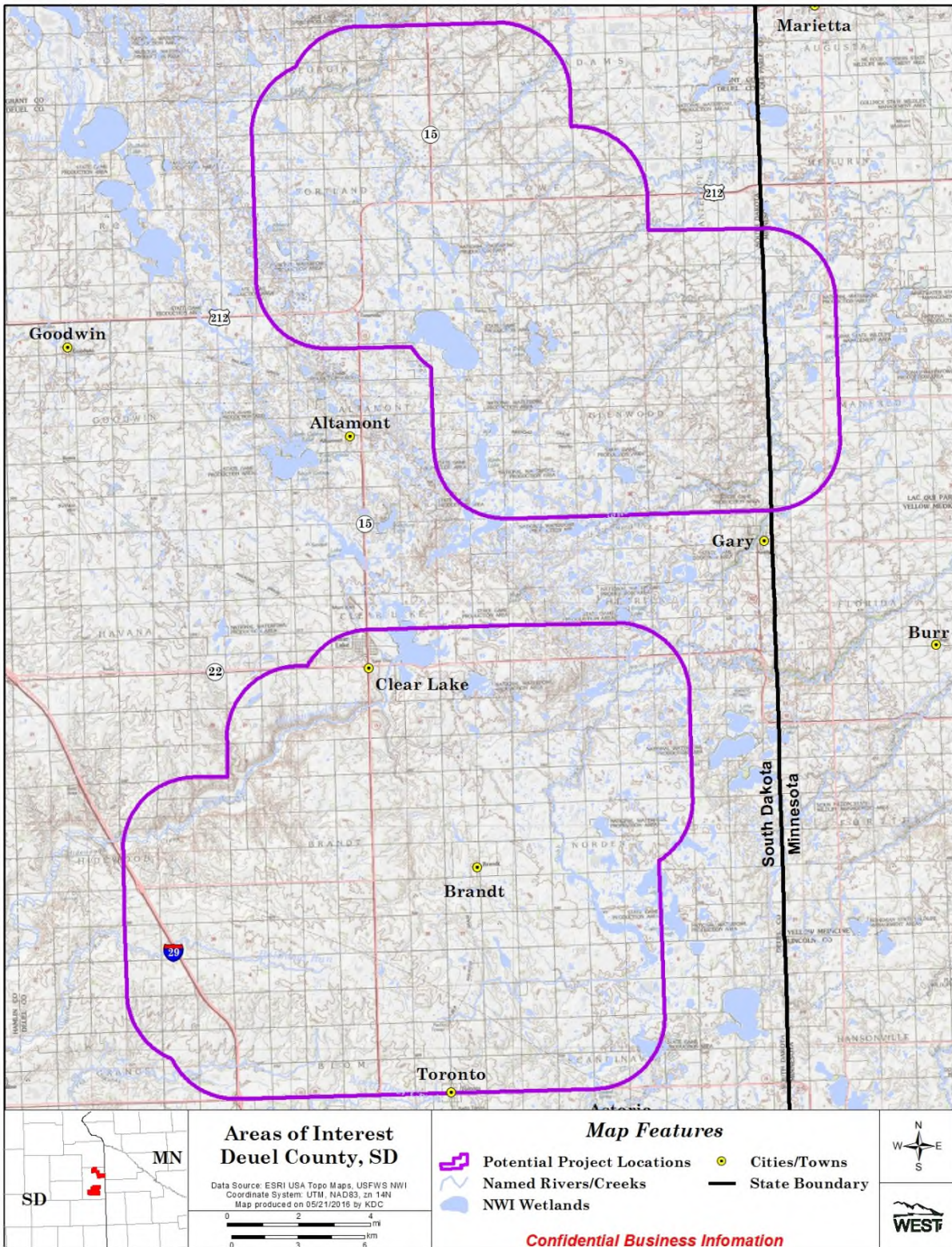


Figure 1. Areas of Interest, Deuel County, South Dakota.

## Svedeman, Michael

---

**From:** Hansen, Natoma <natoma\_hansen@fws.gov>  
**Sent:** Wednesday, January 24, 2018 2:00 PM  
**To:** Giampoli, Andrea; Svedeman, Michael  
**Subject:** USFWS Easements and Turbine Siting Map, Please Call  
**Attachments:** 26756827\_1579206642161839\_3249818446384804451\_o.jpg; DEUEL FmHA 19C EXIHIBIT\_001.pdf; DEUEL 138C1-3\_001.pdf; DEUEL 260G 1-4\_001.pdf; DEUEL 193C\_001.pdf; DEUEL 221X,1,2\_001.pdf; DEUEL 92X,1.pdf; DEUEL 96X\_001.pdf; DEUEL 128X\_001.pdf; DEUEL 226X\_001.pdf; DEUEL 260X1-4\_001 (1).pdf; DEUEL 198X\_001.pdf; DEUEL 113X\_001.pdf

I received the attachment below which depicts turbine locations, collection lines, access roads for the Deuel Harvest North Wind Farm.

It looks like most of the turbine locations do not conflict with USFWS grassland easements or easements the USFWS administers protecting grassland. **With the exception of one. The turbine located in 116-48 section 32 NW1/4 has a conservation easement administered by the USFWS which protects grassland.** It appears this turbine is located in the protected grassland area. I attached a copy of the conservation easement which shows the area covered under grass. This is labeled as Deuel FmHA 19C EXIHIBIT E. Please contact me ASAP to discuss further.

Best I could tell from the attached map there are 4 areas where collection lines go through USFWS grassland easements. Are you planning on boring these collection lines under the grassland easement? The areas where collection lines go through grassland easement depicted on this map are the following: 117-49 Section 5 SW1/4; 117-49 Section 27 S1/2 SW1/4 & 34 N1/2 NW1/4; 117-48 Section 21 NW1/4; 117-49 Section 25 NE1/4. Please see the following grassland easement contracts for further information (Deuel 193C, Deuel 138C, 1-3 and Deuel 260G, 1-4)

There are several areas where turbines, collection lines and access roads are located in areas where a wetland easement exists. For these areas please avoid protected basins. I have provided the easement contract and associated map depicting protected basins for areas where turbines, collection lines or access roads are depicted on the Turbine Siting Map. As mentioned in previous correspondence these wetland areas are protected from drainage, fill, leveling and burning. Please see the following easement contracts and maps (Deuel 113X, Deuel 198X, Deuel 226X, Deuel 128X, Deuel 92X,1, Deuel 96X,1, Deuel 221X,1,2 and 260X, 1-4)

Is there a chance we can have a conference call to discuss?

Thanks

Natoma

Natoma (Tomi) Hansen  
Project Leader  
USFWS Madison WMD  
605-636-3869 Direct Office Line  
605-256-2974 General Office  
605-251-8119 Cell

## Giampoli, Andrea

---

**From:** Gates, Natalie <natalie\_gates@fws.gov>  
**Sent:** Monday, July 10, 2017 12:00 PM  
**To:** Giampoli, Andrea  
**Subject:** waterfowl avoidance of wind turbines  
**Attachments:** Loesch et al. 2013 Effects of wind energy development on PPR ducks.pdf; Estimating the Impact of Wind Energy Development on Breeding Waterfowl for the Geranimo wind project.docx

Hey Andrea,

I do have some information to share on avoidance by waterfowl after all - see attached.

So if turbines are placed in the vicinity of wetlands, this is another mitigation consideration.

We discussed grassland easement purchase through Ducks Unlimited as an option - if such areas also contained adequate wetlands, an easement purchase could address both waterfowl and migratory bird avoidance.

-Natalie

*Natalie Gates, U.S. Fish and Wildlife Service  
Ecological Services South Dakota Field Office  
420 South Garfield Avenue, Suite 400  
Pierre, South Dakota 57501  
Phone: 605-224-8693, Ext. 227; Fax: 605-224-9974  
<http://www.fws.gov/southdakotafieldoffice/>*

## Svedeman, Michael

---

**From:** Giampoli, Andrea  
**Sent:** Monday, April 4, 2016 3:31 PM  
**To:** Hansen, Natoma  
**Cc:** Svedeman, Michael; Kristen Chodachek  
**Subject:** Data Request - Deuel County  
**Attachments:** deuel\_confidential\_20160401.zip

Hi Natoma,

It was nice to speak with you last week over the phone about Invenergy's development of a wind project in Deuel County. I've attached the boundary that we referenced on the call to get the USFWS interest parcel data. Please let us know if there is anything more that you need to conduct this analysis. Please regard the attached data as confidential. We appreciate your help and the Service's time in pulling this together.

Kindly,

Andrea

Andrea M. Giampoli | Environmental and Wildlife Permitting Manager  
Invenergy LLC | One South Wacker Drive, Suite 1800, Chicago, IL 60606  
agiampoli@invenergyllc.com | 312-582-1779



## Giampoli, Andrea

---

**From:** Gates, Natalie <natalie\_gates@fws.gov>  
**Sent:** Monday, July 10, 2017 11:40 AM  
**To:** Giampoli, Andrea  
**Subject:** Fwd: powerpoints available for distribution?  
**Attachments:** Shaffer\_Buhl\_MethodforEstimatingImpact.5.22.2017.ppt

Andrea, I mentioned during our Deuel County field trip that I would send you more information about mitigating for migratory bird avoidance when turbines are placed in grasslands. The attached powerpoint from Jill Shaffer (USGS in Jamestown, ND) is based on a study she did in ND/SD - I believe I've already sent you the publication on this work (Shaffer and Buhl 2015).

I also mentioned there's some similar information regarding waterfowl avoidance of wetlands near turbines; I do not at this time have a document to send to you regarding that study.

Jill indicated it is important to read the notes associated with each slide so the presentation makes sense, and she's happy to answer questions you may have (her and her co-author's contact info is in the powerpoint) - please keep me in the loop if you do check with them.

Thank you.

-Natalie

*Natalie Gates, U.S. Fish and Wildlife Service  
Ecological Services South Dakota Field Office  
420 South Garfield Avenue, Suite 400  
Pierre, South Dakota 57501  
Phone: 605-224-8693, Ext. 227; Fax: 605-224-9974  
<http://www.fws.gov/southdakotafieldoffice/>*

## Svedeman, Michael

---

**From:** Olson, Paige <Paige.Olson@state.sd.us>  
**Sent:** Wednesday, August 16, 2017 7:36 AM  
**To:** Svedeman, Michael  
**Subject:** RE: Meeting with Invenergy - Deuel Harvest Wind Farm

Yes, that date and time work for us. Thank you.

---

**From:** Svedeman, Michael [mailto:MSvedeman@invenergyllc.com]  
**Sent:** Tuesday, August 15, 2017 4:41 PM  
**To:** Olson, Paige  
**Subject:** [EXT] Meeting with Invenergy - Deuel Harvest Wind Farm

Hi Paige,

I left you a voicemail as well. I got the confirmation from the other participant on my end that a meeting with SHPO will work on August 31<sup>st</sup> at 2 pm CST – will that time still work for you and any of your potential colleagues that will be joining?

Thank you,

Michael Svedeman | Manager, Project Development  
Invenergy LLC | One South Wacker Drive, Suite 1800, Chicago, IL 60606  
[MSvedeman@invenergyllc.com](mailto:MSvedeman@invenergyllc.com) | T 312-582-1549 | C 214-927-3213

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November 8, 2018

Garrie Kills A Hundred  
Tribal Historic Preservation Office  
Flandreau Santee Sioux Tribe  
P.O. Box 283  
Flandreau, SD 57028

Re: Deuel Harvest North Wind Farm  
Deuel County, South Dakota  
Burns & McDonnell Project No. 103753

Dear Mr. Kills A Hundred:

Deuel Harvest Wind Energy LLC (Deuel Harvest Wind), an affiliate of Invenergy LLC, is proposing to construct an up to 300-megawatt (MW) wind farm in Deuel County, South Dakota (Deuel Harvest North) and has retained Burns & McDonnell Engineering Company, Inc. (Burns & McDonnell) to conduct cultural resource surveys.

Deuel Harvest North is located entirely within Deuel County in the townships of Portland, Lowe, Altamont, Glenwood, and Herrick. The Project Boundary location is shown on Figure 1. The proposed Project consists of up to 124 turbine locations, access roads, crane paths, underground collection lines, project substations and an associated feeder-line, associated facilities and infrastructure, and a survey corridor determined by Deuel Harvest Wind (Project Area). The Project Boundary is located approximately 6 miles northeast of the City of Clear Lake and 22 miles east of the City of Watertown. The majority of the Project Boundary is comprised of previously-disturbed agricultural and pasturelands. Deuel Harvest North is located in the Sections, Townships, and Ranges listed in Table 1.

**Table 1: Deuel Harvest North Project Boundary Legal Description**

Section	Township	Range	Quad
19, 21-22, 25-29, 31-36	117N	48W	Lowe
4-5, 8-9, 13-17, 21-28, 34-36	117N	49W	Portland
4-9, 15-16, 18, 21, 28-31	116N	47W	Altamont
1-3, 10-15, 19-26, 28-29, 32, 35-36	116N	48W	Glenwood
6	115N	47W	Herrick
1	115N	48W	Herrick

The Project is being permitted at the state and local levels; the Project does not require a federal permit. Deuel Harvest Wind has conducted a desktop review for the Project and a Level III Archaeological Survey for all areas of high probability for cultural resources within the Project



Garrie Kills A Hundred  
Flandreau Santee Sioux Tribe  
November 8, 2018  
Page 2

Area. Deuel Harvest Wind has also completed a Historic Architectural Resources Reconnaissance Survey within the Project Area and within a one-mile buffer around the Project Area.

If you would like to review the results of these analyses or would like additional information regarding the Project, please contact me at (816) 844-4447, or by email at [deshaver@burnsmcd.com](mailto:deshaver@burnsmcd.com).

Sincerely,

A handwritten signature in blue ink, appearing to read "Douglas Shaver".

Douglas Shaver, M.S., RPA  
Cultural Resource Specialist

Enclosure

cc: Bryan Gasper, Burns & McDonnell  
Michael Svedeman, Invenergy

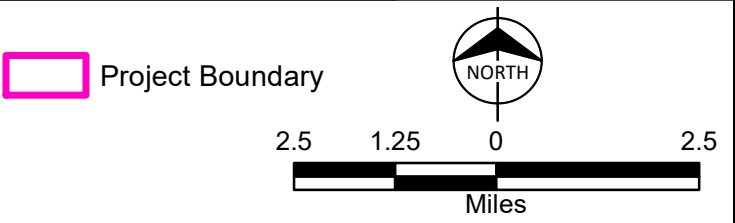
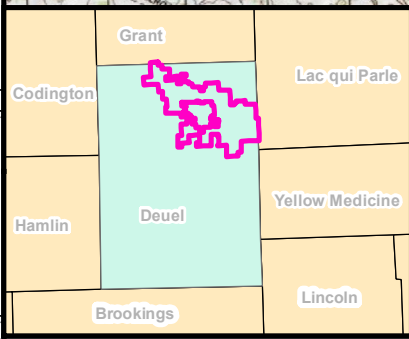
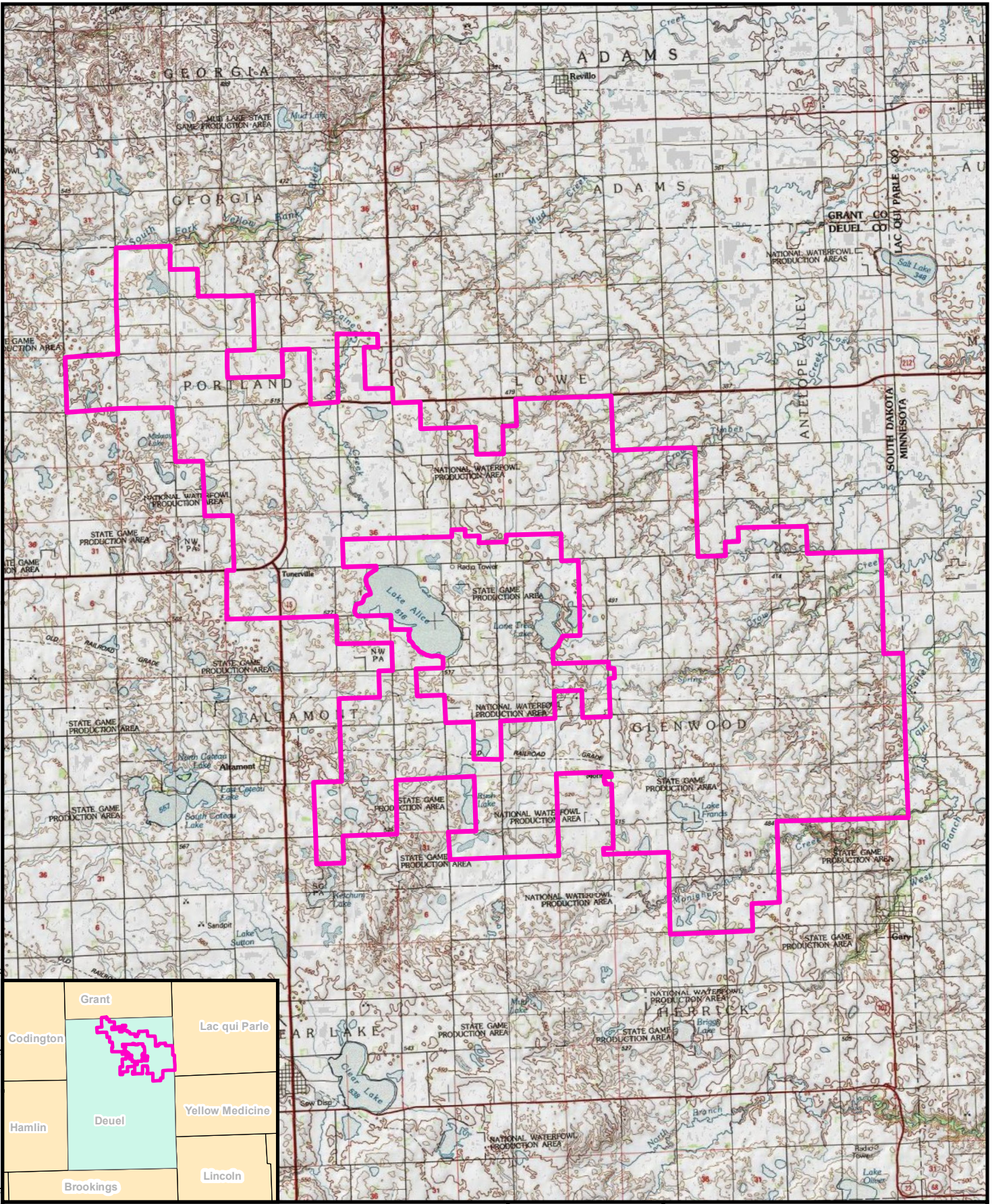


Figure 1  
 Deuel Harvest North Wind Farm  
 Project Boundary  
 1:150,000 Topographic Map  
 Deuel Harvest Wind Energy, LLC  
 Deuel County, South Dakota

## Svedeman, Michael

---

**From:** Gordon, Steven  
**Sent:** Tuesday, November 20, 2018 2:59 PM  
**To:** Henry, Joyce  
**Subject:** Deuel Harvest Wind Energy Center  
**Attachments:** NTIA Letter\_Deuel Wind Energy Center.pdf

Hi Joyce,

Thank you distributing the Thunderhead project for me this afternoon. I have another project I would like to submit the to the NTIA for evaluation. Please see the attached document for Deuel Harvest and let me know if you need any additional information.

Have a Happy Thanksgiving!

Thanks,

**Steven Gordon** | Staff Engineer, Renewable Engineering  
**Invenergy** | One South Wacker Drive, Suite 1800, Chicago, IL 60606  
[sgordon@invenergyllc.com](mailto:sgordon@invenergyllc.com) | D 312-429-2512 | M 248-752-0864

**Svedeman, Michael**

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**From:** Henry, Joyce <JHenry@ntia.doc.gov>  
**Sent:** Wednesday, November 28, 2018 12:06 PM  
**To:** faslist  
**Cc:** Gordon, Steven  
**Subject:** [EXTERNAL] ^^Wind Turbine Action Item^^ Deuel Harvest Project: Deuel County, SD  
**Attachments:** notifyletter\_Deuel Wind Energy Center.pdf

Good Afternoon:

Please find attached an **INVENERGY LLC** turbine proposal for the Deuel Harvest Wind Energy Center, located in Deuel County, South Dakota.

Please provide by COB **January 12, 2019**, any comments or concerns; and, **DO NOT REPLY TO ALL** unless the intent is to respond to the entire FAS Mailing List. Replying to All could possibly result in clogging the Listserv with unnecessary traffic.

Your comments should be sent by email to [jhenry@ntia.doc.gov](mailto:jhenry@ntia.doc.gov). If you register any concerns, please include **all your appropriate contact information, to include FULL USPS mailing address, with email and phone. Your contact information will be important for any follow-up from the wind project developers.**

Any concerns raised by the agencies will be identified and noted in the NTIA Response Letter.

*Joyce C. Henry*  
*DOC/NTIA/OSM HQ*  
*Admin*  
*202-482-2215*  
[jhenry@ntia.doc.gov](mailto:jhenry@ntia.doc.gov)

*“He who hesitates is lost”*

**#ALLCAPS #LORDSTANLEYLIVESHERE**

## Svedeman, Michael

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**From:** noreply@faa.gov  
**Sent:** Friday, November 23, 2018 11:40 AM  
**To:** Gordon, Steven  
**Subject:** [EXTERNAL] Status of FAA Filing

Your filing is assigned Aeronautical Study Number(s) (ASN): 2018-WTE-11290-OE, 2018-WTE-11291-OE, 2018-WTE-11292-OE, 2018-WTE-11293-OE, 2018-WTE-11294-OE, 2018-WTE-11295-OE, 2018-WTE-11296-OE, 2018-WTE-11297-OE, 2018-WTE-11298-OE, 2018-WTE-11299-OE, 2018-WTE-11300-OE, 2018-WTE-11301-OE, 2018-WTE-11302-OE, 2018-WTE-11303-OE, 2018-WTE-11304-OE, 2018-WTE-11305-OE, 2018-WTE-11306-OE, 2018-WTE-11307-OE, 2018-WTE-11308-OE, 2018-WTE-11309-OE, 2018-WTE-11310-OE, 2018-WTE-11311-OE, 2018-WTE-11312-OE, 2018-WTE-11313-OE, 2018-WTE-11314-OE, 2018-WTE-11315-OE, 2018-WTE-11316-OE, 2018-WTE-11317-OE, 2018-WTE-11318-OE, 2018-WTE-11319-OE, 2018-WTE-11320-OE, 2018-WTE-11321-OE, 2018-WTE-11322-OE, 2018-WTE-11323-OE, 2018-WTE-11324-OE, 2018-WTE-11325-OE, 2018-WTE-11326-OE, 2018-WTE-11327-OE, 2018-WTE-11328-OE, 2018-WTE-11329-OE, 2018-WTE-11330-OE, 2018-WTE-11331-OE, 2018-WTE-11332-OE, 2018-WTE-11333-OE, 2018-WTE-11334-OE, 2018-WTE-11335-OE, 2018-WTE-11336-OE, 2018-WTE-11337-OE, 2018-WTE-11338-OE, 2018-WTE-11339-OE, 2018-WTE-11340-OE, 2018-WTE-11341-OE, 2018-WTE-11342-OE, 2018-WTE-11343-OE, 2018-WTE-11344-OE, 2018-WTE-11345-OE, 2018-WTE-11346-OE, 2018-WTE-11347-OE, 2018-WTE-11348-OE, 2018-WTE-11349-OE, 2018-WTE-11350-OE, 2018-WTE-11351-OE, 2018-WTE-11352-OE, 2018-WTE-11353-OE, 2018-WTE-11354-OE, 2018-WTE-11355-OE, 2018-WTE-11356-OE, 2018-WTE-11357-OE, 2018-WTE-11358-OE, 2018-WTE-11359-OE, 2018-WTE-11360-OE.

To review your electronic record, go to our website [oeaaa.faa.gov](http://oeaaa.faa.gov) and select the Search Archives link to locate your case using the assigned Aeronautical Study Number (ASN).

The FAA verified your filing and an aeronautical study has been initiated. Please allow a minimum 45 days for the FAA to complete the study. Please refer to the assigned ASN on all future inquiries regarding this filing.

For Wind Turbine proposals only, please ensure Wind Turbine Data as described on the project summary page in your registered e-filing account has been uploaded to your filing.

*To ensure e-mail notifications are delivered to your inbox please add noreply@faa.gov to your address book. Notifications sent from this address are system generated FAA e-mails and replies to this address will NOT be read or forwarded for review. Each system generated e-mail will contain specific FAA contact information in the text of the message.*



## Svedeman, Michael

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**From:** noreply@faa.gov  
**Sent:** Friday, November 23, 2018 11:42 AM  
**To:** Gordon, Steven  
**Subject:** [EXTERNAL] Status of FAA Filing

Your filing is assigned Aeronautical Study Number(s) (ASN): 2018-WTE-11361-OE, 2018-WTE-11362-OE, 2018-WTE-11363-OE, 2018-WTE-11364-OE, 2018-WTE-11365-OE, 2018-WTE-11366-OE, 2018-WTE-11367-OE, 2018-WTE-11368-OE, 2018-WTE-11369-OE, 2018-WTE-11370-OE, 2018-WTE-11371-OE, 2018-WTE-11372-OE, 2018-WTE-11373-OE, 2018-WTE-11374-OE, 2018-WTE-11375-OE, 2018-WTE-11376-OE, 2018-WTE-11377-OE, 2018-WTE-11378-OE, 2018-WTE-11379-OE, 2018-WTE-11380-OE, 2018-WTE-11381-OE, 2018-WTE-11382-OE, 2018-WTE-11383-OE, 2018-WTE-11384-OE, 2018-WTE-11385-OE, 2018-WTE-11386-OE, 2018-WTE-11387-OE, 2018-WTE-11388-OE, 2018-WTE-11389-OE, 2018-WTE-11390-OE, 2018-WTE-11391-OE, 2018-WTE-11392-OE, 2018-WTE-11393-OE, 2018-WTE-11394-OE, 2018-WTE-11395-OE, 2018-WTE-11396-OE, 2018-WTE-11397-OE, 2018-WTE-11398-OE, 2018-WTE-11399-OE, 2018-WTE-11400-OE, 2018-WTE-11401-OE, 2018-WTE-11402-OE, 2018-WTE-11403-OE, 2018-WTE-11404-OE, 2018-WTE-11405-OE, 2018-WTE-11406-OE, 2018-WTE-11407-OE, 2018-WTE-11408-OE, 2018-WTE-11409-OE, 2018-WTE-11410-OE, 2018-WTE-11411-OE, 2018-WTE-11412-OE, 2018-WTE-11413-OE.

To review your electronic record, go to our website [oeaaa.faa.gov](http://oeaaa.faa.gov) and select the Search Archives link to locate your case using the assigned Aeronautical Study Number (ASN).

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