NEBRASKA
GAME PARKS

Nebraska Game and Parks Commission
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November 7, 2013

Sara Hayek
Nebraska Power Review Board
P.O. Box 94713
Lincoln, NE 68509-4713

Re: PRB-3740 Grande Prairie Wind Farm, Holt County, Nebraska

Dear Ms. Hayek:

Please make reference to your email dated October 23, 2013 This letter is in response to your request for a review of this project's potential impacts to endangered and threatened species in Holt County, Nebraska. Staff of the Nebraska Game and Parks Commission (Commission) have completed a review of the proposed project under Neb. Rev. Stat. § 37-807 (3) of the Nongame and Endangered Species Conservation Act (NESCA) and we offer the following comments.

As we understand it, Grande Prairie Wind , LLC (Grande Prairie) plans to construct a wind energy facility (project), which includes approximately 200 – 266 wind turbines having a combined generation capacity of approximately 400 MW, access roads, collection and interconnection lines, substations, laydown/staging areas, and an operation and maintenance facility.

STATE-LISTED ENDANGERED AND THREATENED SPECIES
The proposed project is within or near the range of the state and federally listed endangered American burying beetle (*Nicrophorus americanus*), whooping crane (*Grus americana*) and interior least tern (*Sternula antillarum athalassos*); the state and federally listed threatened piping plover (*Charadrius melodus*) and western prairie fringed orchid (*Platanthera praeclara*); and the state listed threatened small white lady's slipper (*Cypripedium candidum*) and river otter (*Lontra canadensis*). This project is also within the range of northern long-eared bat (*Myotis septentrionalis*), which is currently proposed by the U. S. Fish and Wildlife Service (Service) to be listed as endangered (78 FR 61045).

American Burying Beetle
American burying beetle (*Nicrophorus americanus*) is a member of the carrion beetle family Silphidae. They are an important part of the nutrient cycling process as they recycle decaying materials back into the ecosystem. These beetles are nocturnal and search widely for carrion. This species is found in a variety of habitats including grassland prairie, forest edge, scrubland and mesic areas such as wet meadows, streams, and wetlands. Carrion availability is a more important component of habitat than a specific type of vegetation. The causes for the decline of this species are complex and remain unresolved, but likely relate to habitat fragmentation, use of artificial lighting, and degradation of habitat that results in declines of small birds and mammals (200 grams or less) the American burying beetle uses for reproduction purposes (Nebraska Game and Parks Commission 1995). In Nebraska, the American burying beetle has been observed from April 1 to October 29, with peak periods of activity extending from June through August.

American burying beetle (ABB) presence/absence surveys were conducted in 2012. No ABB were found during the 54 trap night effort. Except for one night during the survey period, weather

conditions were conducive for ABB activity, as demonstrated by the fact that ABB were caught at a control site near Chambers in Holt County, Nebraska during the same time when surveys were being conducted in the project area. Based on the results of the survey, it is unlikely this project will adversely affect ABB, and conservation measures for this species are not recommended at this time.

Whooping Crane

Whooping cranes use shallow, sparsely vegetated streams, wetlands, and farm ponds for roosting and feeding sites during migration. In addition, whooping cranes may forage in crop fields that are in close proximity to roosting locations. The migration period in Nebraska is approximately March 23 through May 10 and from September 16 through November 16. In addition, a 3-mile wide, 56 mile long reach of the Platte River from Lexington to Shelton, Nebraska has been federally listed as critical habitat for whooping cranes. Alterations to feeding and roosting habitats, human disturbance and depletions of instream flows have negative impacts on whooping cranes. There is also potential for whooping cranes to collide with wind turbines and power lines.

The project area is on the eastern edge of the 95 percent whooping crane migration corridor. This migration corridor includes 95 percent of all whooping crane sightings. There are no records of whooping cranes within the project area; however, the U. S. Fish and Wildlife Service (Service) estimates that only 4 percent of individual whooping crane stopovers in Nebraska are sighted and reported. Therefore, it is possible whooping cranes have stopped over in the project area, but were not seen. There are records of whooping cranes within ten miles of the project area.

Due to the limited amount of roosting and stopover habitat within the project area, in addition to the location of this project within the migration corridor, the probability of whooping cranes landing in or flying through the project area is low. Despite this, there is no way to completely eliminate the risk of whooping cranes colliding with turbines or transmission lines.

Grande Prairie has committed to implementing certain guidelines and conservation measures in order to *reduce* (not eliminate) the risk of avian collisions with the power line(s) and turbines, and minimize potential impacts the facility may have on whooping cranes. Please refer to the enclosed letter dated November 7, 2013 for further information about Grande Prairie's commitments to minimize impacts on listed birds (including whooping cranes), bats, and other species of concern.

Interior Least Tern and Piping Plover

There are records of interior least tern and piping plover along the Niobrara River north of the project area. Both of these species nest on unvegetated or sparsely vegetated sandbars in river channels and can also utilize sandpits. The nesting season for the least tern and piping plover is from April 15 through August 15. Channel constrictions and obstructions that disrupt natural flows in the river and influence sandbar complexes in the river limit potential habitat for these birds. Depletions of instream flows from the Platte River may also have negative impacts. Human activity in the vicinity of feeding and nesting habitats can disturb least terns and piping plovers. Terns and plovers could also collide with turbines or transmission lines.

The northern border of the project area is approximately six miles from the Niobrara River where terns and plovers nest. This is an appropriate buffer from the river in order to minimize potential risk to these species. In addition, some of the commitments outlined in the enclosed letter will further minimize the risk to individuals that may be flying through this area.

Western Prairie Fringed Orchid and Small White Lady's Slipper

Western prairie fringed orchid occurs in native tall or mixed-grass prairies that are associated with wet meadows. Although the plant can be a colonizer species and grow on disturbed areas, it is found in

greatest abundance on high quality prairie. This plant blooms in late June to July. Declines in western prairie fringed orchid populations have been caused by the drainage and conversion of its habitat to agricultural production, channelization, siltation, road and bridge construction, over-grazing, and the application of herbicides.

Small white lady's slipper grows in clumps with one flower at the tip of a flowering stem consisting of a white, pouch-shaped "slipper." This insect-pollinated plant is found in moist to wet prairies, fens and sedge meadows. This orchid flowers from mid-May to June in Nebraska. Reasons for decline are similar to those for western prairie fringed orchid.

Habitat assessments and surveys for western prairie fringed orchid and small white lady's slipper were conducted in 2012 and neither species was detected. As stated in the enclosed letter, additional pre-construction surveys for these two species will be conducted in 2014 and Grande Prairie will avoid all impacts to these two species.

River Otter

River otters require a large amount of space to meet their annual requirements. During a year, an otter may occupy 50 or more miles of stream course and will often move from one area to another. River otters are most often active from early evening through early morning, but may also be active during the day. This is a highly mobile species, and if present, is likely to leave during disturbance. However, otters are susceptible when they have young pups in the natal den. In Nebraska, female otters enter the natal den beginning in late February through April. The pups are helpless until about seven weeks of age. River otters use dens that were dug by other species such as beaver and utilize upland dens that can be up to ½ mile from the nearest water body (i.e. river, stream, wetland, lake, pond, sandpit, etc.). Ground disturbance (i.e. digging, trenching, grading, etc.) can destroy river otter dens.

As currently proposed, the project is near (not within) the range of river otter and it will not adversely impact river otters. Conservation conditions are not recommended for this species at this time.

Based on a review of the material you sent, aerial photographs, topographic maps, our Nebraska Natural Heritage Database, a site visit conducted on August 12, 2013, survey results and assessments, the commitments outlined in the enclosed letter, and several electronic, written, and verbal correspondences between the Commission and the project proponents, **we have determined the proposed project "may affect, but is not likely to adversely affect" state-listed endangered or threatened species**. If the proposed project is changed or new information regarding endangered or threatened species becomes available, then this determination is no longer valid and further consultation with the Nebraska Game and Parks Commission will be necessary.

All federally listed endangered or threatened species are also state-listed. For an assessment of potential impacts on federally listed, candidate or proposed endangered or threatened species, please contact Martha Carlisle, Nebraska Field Office, U.S. Fish and Wildlife Service, 203 W. Second St., Grand Island, NE 68801.

ADDITIONAL INFORMATION

The information and recommendations contained in this section of the letter do not alter the effect determination for state-listed endangered and threatened species. This information is being provided in order to assist the project proponent comply with other federal regulations and wildlife laws, and in order to preserve the natural diversity within our state.

Northern Long-Eared Bat
On October 2, 2013, the U. S. Fish and Wildlife Service proposed listing the northern long-eared bat as endangered (78 FR 61045). Critical habitat is not proposed for northern long-eared bat at this time. There is a 60-day comment period, which will close on December 2, 2013. All comments will be considered and a final determination on the proposal will be made within one year. If this species becomes listed at the federal level, it will automatically become listed for Nebraska.

There are records of northern long-eared bat near the project area, and this project is within the range of this species. Northern long-eared bats typically overwinter in hibernacula that include caves and abandoned mines, but may also use other habitats that resemble cave or mine hibernacula, such as abandoned railroad tunnels, storm sewer entrances, dry wells, aqueducts and other similar structures. During the summer, these bats will roost singly or in colonies underneath bark or in cavities or crevices of both live trees and snags. As stated in the enclosed letter, Grande Prairie will continue to coordinate with the Commission and the Service to avoid, minimize and mitigate impacts to species, such as the northern long-eared bat, which may become listed during the development, construction, and operation of the project.

Bald and Golden Eagle Protection Act
The federal Bald and Golden Eagle Protection Act (Eagle Act) (16 U.S.C. 668-668c) provides for the protection of the bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*). Under the Eagle Act, "take" of eagles, their parts, nests or eggs is prohibited without a permit issued by the Secretary of the Interior. Disturbance resulting in injury to an eagle or a decrease in productivity or nest abandonment by substantially interfering with normal breeding, feeding, or sheltering behavior is a form of "take."

Bald eagles use mature, forested riparian areas near rivers, streams, lakes, and wetlands and occur along all the major river systems in Nebraska. The bald eagle southward migration begins as early as October and the wintering period extends from December-March. The golden eagle is found in arid open country with grassland for foraging in western Nebraska and usually near buttes or canyons which serve as nesting sites. Golden eagles are often a permanent resident in the Pine Ridge area of Nebraska. Additionally, many bald and golden eagles nest in Nebraska from mid-February through mid-July. Disturbances within 0.5-miles of an active nest or within line-of-sight of the nest could cause adult eagles to discontinue nest building or to abandon eggs. Both bald and golden eagles frequent river systems in Nebraska during the winter where open water and forested corridors provide feeding, perching, and roosting habitats, respectively. The frequency and duration of eagle use of these habitats in the winter depends upon ice and weather conditions. Human disturbances and loss of wintering habitat can cause undue stress leading to cessation of feeding and failure to meet winter thermoregulatory requirements. These affects can reduce the carrying capacity of preferred wintering habitat and reproductive success for the species.

A raptor nest survey was conducted in 2012 in the project area and within 1 km of the project area. At the time, eagles nests were not detected, but bald eagles were observed. There are records of bald eagles nesting within 10 miles of the project area. To comply with the Eagle Act, Grande Prairie will implement the Service's Land-Based Wind Energy Guidelines (2012) and may also follow the Service's Eagle Conservation Plan Guidance Module 1 – Land-based Wind Energy Version 2 (2013).

Migratory Bird Treaty Act
Under the Migratory Bird Treaty Act (16 U.S.C. 703-712: Ch. 128 *as amended*) (MBTA) construction activities in grassland, wetland, stream, woodland, and river bank habitats that would otherwise result in the taking of migratory birds, eggs, young, and/or active nests should be avoided. Although the provisions of MBTA are applicable year-round, most migratory bird nesting activity in Nebraska occurs

during the period of April 1 to July 15. However, some migratory birds are known to nest outside of the aforementioned primary nesting season period. For example, raptors can be expected to nest in woodland habitats from February 1 through July 15, whereas sedge wrens, which occur in some wetland habitats, normally nest from July 15 to September 10. The Bird and Bat Conservation Strategy will address ways to avoid impacts to migratory birds during construction and operation.

The Commission has concern regarding the potential impact of wind energy development on grassland nesting birds, raptors (including eagles), prairie grouse (i.e. prairie chickens and sharp-tailed grouse), and bats that do not receive legal protection under NESCA, but are worth considering in order to maintain the biological diversity of the ecosystems within our state. Therefore, Grande Prairie, in coordination with the Commission and the Service, will continue to develop pre- and post-construction surveys and avoidance, minimization, and mitigation measures to address potential impacts to non-listed species.

Thank you for the opportunity to comment. If you have any questions or need additional information, please feel free to contact me at (402) 471-5438 or michelle.koch@nebraska.gov.

Sincerely,

Michelle R Koch

Michelle R. Koch
Environmental Analyst Supervisor
Environmental Services Division

ec: Geronimo Energy (Patrick Smith, Patrick Dalseth, Tim Polz, Betsy Engelking, Ingrid Schwingler)
Stantec (Terry VanDeWalle)
Baird Holm (David Levy)
U. S. Fish and Wildlife Service (Martha Carlisle, Eliza Hines)
Nebraska Game and Parks Commission (Mike Fritz, Joel Jorgensen)
Nebraska Power Review Board (Tim Texel)
Western (Matt Marsh)

Enclosure (1)

References

Endangered and Threatened Wildlife and Plants; 12-Month Finding on a Petition To List the Eastern Small-Footed Bat and the Northern Long-Eared Bat as Endangered or Threatened Species; Listing the Northern Long-Eared Bat as an Endangered Species; Proposed Rule. Federal Register 78:191 (October 2, 2013) p. 61045-61080.

Nebraska Game and Parks Commission. 1995. *Nebraska's Threatened and Endangered Species: American Burying Beetle.* Nebraska Game and Parks Commission, Lincoln, Nebraska.

U.S. Fish and Wildlife Service. U.S. Fish and Wildlife Service Land-Based Wind Energy Guidelines. March 2012. p. 82.

U.S. Fish and Wildlife Service, Division of Migratory Bird Management. Eagle Conservation Plan Guidance, Module 1 – Land-based Wind Energy Version 2. April 2013. p. 118.

Enclosure

GRANDE PRAIRIE WIND FARM
Holt County, NE

November 7, 2013

Michelle R. Koch
Environmental Analyst Supervisor
Nebraska Game and Parks Commission
2200 North 33rd Street
Lincoln, NE 68503
VIA EMAIL

Dear Ms. Koch,

Grande Prairie Wind, LLC (Grande Prairie) is proposing to construct a 400–megawatt commercial, utility-scale wind energy generation facility northeast of O'Neill, Nebraska, in Holt County (the Project or Grande Prairie Wind Farm). Midwest Wind Energy began development of the Project in 2008 and the Project was acquired by Geronimo Energy in 2013. The Project will consist of up to 266 wind turbines, underground electrical collection system, access roads, meteorological monitoring stations, up to three substations and an up to 13-mile long transmission line. The attached map provides the Project's boundary and interconnection point.

As part of Grande Prairie's commitment to responsible development, it will implement the U.S. Fish and Wildlife Services' (USFWS) March 23, 2012 Land-Based Wind Energy Guidelines (LBWEGs) in coordination with the USFWS Nebraska Ecological Services Office, the USFWS' Mountain-Prairie Regional Office and the Nebraska Game and Parks Commission (NGPC). Grande Prairie and its consultants have completed many Tier 2 and 3 reviews and are currently in the process of contextualizing these assessments in the framework of the LBWEGs. Once contextualizing is complete, Grande Prairie will provide Tier 2 and Tier 3 reports to NGPC and USFWS for review and comment. On October 31st, 2013, Grande Prairie provided a letter to NGPC regarding these commitments and NGPC provided comments regarding those commitments on November 6th, 2013. Grande Prairie, in this communication, provides additional detail regarding those commitments based on NGPC's November 6th letter as well as a clarification phone call Grande Prairie had with NGPC staff on November 7th.

As part of Grande Prairie's implementation of the LBWEGs, it will develop a Bird and Bat Conservation Strategy (BBCS) in coordination with both the NGPC and the USFWS using the standards provided in chapter one of the LBWEGs. In development of the BBCS, Grande Prairie will elicit comments, coordinate and consult with USFWS and NGPC to ensure the Project will be designed, constructed, and operated in compliance, and to the best of Grande Prairie's ability, with both the Nebraska Nongame and Endangered Species Conservation Act and the Endangered Species Act of 1973, as amended. As identified in correspondence and verbal communications with NGPC, one species of concern is the whooping crane. Grande Prairie will ensure that a whooping crane contingency plan that addresses both construction and operational risks the Project may pose to whooping cranes is included in the BBCS. The BBCS will not be confined to just birds and bats in the event that NGPC and USFWS identify non-bird or bat species of concern or their habitats that are not afforded legal protection.

As a baseline for the BBCS document, Grande Prairie will include the following commitments typical of wind energy facilities in Nebraska:

- Bird flight diverters will be installed on all new overhead transmission lines to be built by Grande Prairie in order to minimize risks to Whooping Cranes and other birds.
- Grande Prairie will work with Western Area Power Administration (Western) in an attempt to have Western install bird flight diverters on Western's Fort Thompson 345kV Transmission Line within the Project area.
- The Project's electrical collection and transmission system will be designed, constructed, and operated pursuant to Avian Power Line Interaction Committee Guidelines.

GRANDE PRAIRIE WIND FARM
Holt County, NE

- Permanent meteorological towers will be free of guywires and lighting will be minimized, temporary meteorological towers' guy wires will be marked with marker balls to prevent avian strikes.
- Disturbance areas, both temporary and permanent, will be minimized so as to disturb as little habitat as possible and minimize habitat fragmentation. Disturbed areas will be restored.
- Grande Prairie is committed to avoiding all impacts to the western prairie fringed orchid and the small white lady's slipper, should the species be detected during a second round of pre-construction surveys in 2014.
- An avian and bat post construction mortality study will be conducted for a minimum of one year following Project commissioning using protocol developed in coordination with NGPC and USFWS as well as industry standard methods. Design of the protocol and evaluation of the need for subsequent surveys will be determined using the LBWEGS' guidance on Tier 4 surveys and in coordination with USFWS and NGPC.
- Using the guidelines established by the Nebraska Wind and Wildlife Working Group, Grande Prairie will develop a compensatory mitigation package for direct project impacts to high value and/or sensitive habitat as identified by Grande Prairie in coordination with NGPC and USFWS.
- Project lighting will conform to the best management practices outlined in the LBWEGs. Plans for any temporary safety lighting associated with night-time construction or maintenance activities during spring and fall migration will be developed in consultation with NGPC and FWS to ensure that the lighting will not disrupt whooping crane migration. Lighting of turbines and other permanent infrastructure will be limited to the extent feasible in accordance with the Federal Aviation Administration to reduce the potential for attracting nocturnal migrants. External lighting at substations will utilize down shields and operation staff will be required to turn off internal turbine lights.
- Grande Prairie will work with NGPC and FWS to identify minimization and mitigation actions for impacts to listed birds, bats, and other species of concern during construction and operation.
- Grande Prairie will continue to coordinate with NGPC and USFWS to avoid, minimize and mitigate impacts to species who's status changes to threatened or endangered during the development, construction, and operation of the project.

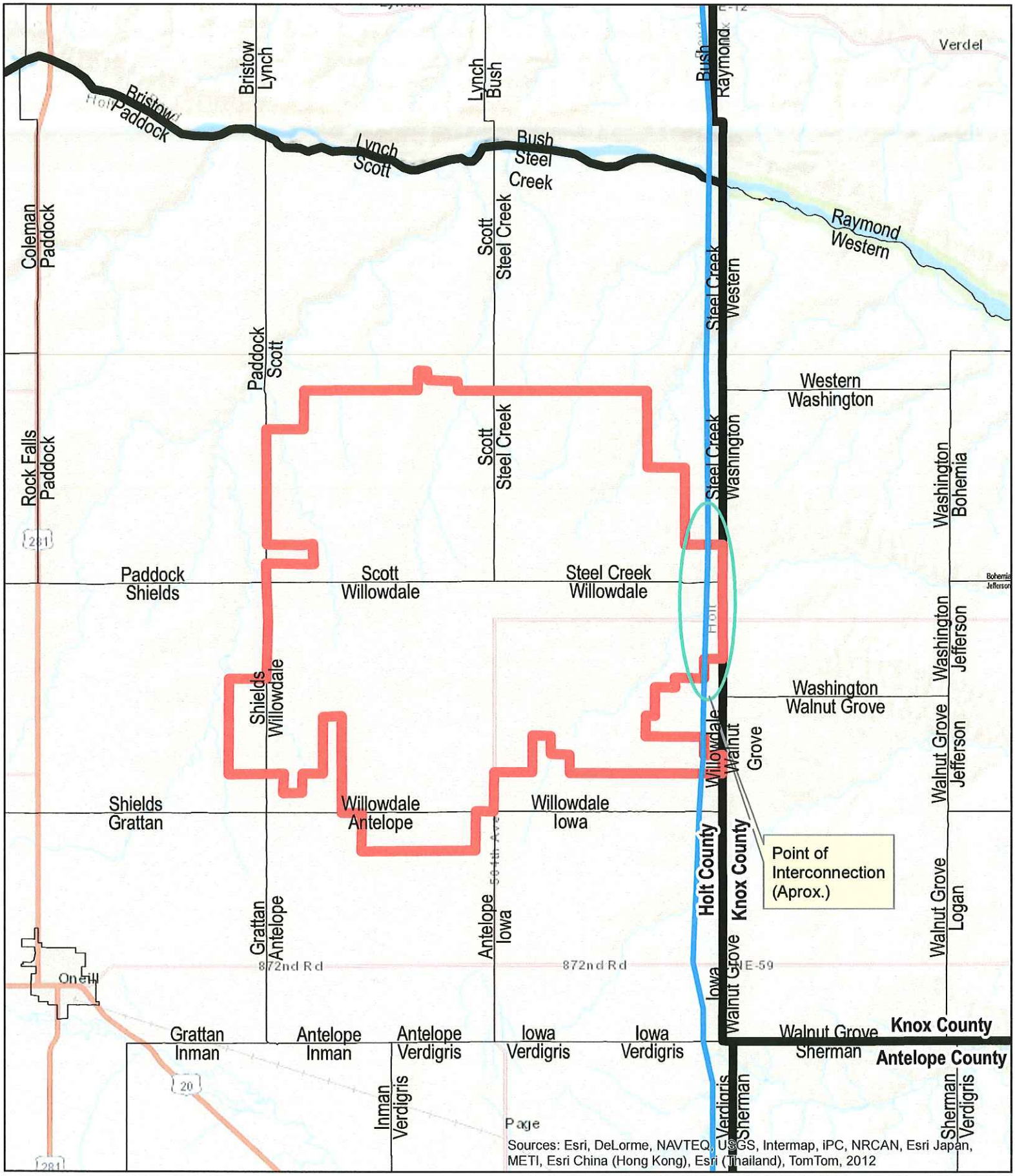
Grande Prairie appreciates the opportunity to work collaboratively with NGPC and USFWS and we look forward to developing the BBCS together.

Sincerely,

Patrick Smith
Director of Environmental Planning
Geronimo Energy

Enclosure

Cc: David Levy, Baird Holm, LLP
Martha Carlisle, Nebraska USFWS Ecological Services Office
Terry VanDeWalle, Stantec Consulting Services, Inc.
Matt Marsh, Western Area Power Administration



GRANDE PRAIRIE WIND FARM
Holt County, NE

GERONIMO ENERGY

Project Location

Grand Island to Fort Thompson 345kV Transmission Line

Grand Prairie Wind Farm Boundary

County Subdivisions (Census)

County

N

5 Miles

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