2019 HOUSE AGRICULTURE

HB 1383

2019 HOUSE STANDING COMMITTEE MINUTES

Agriculture Committee
Peace Garden Room, State Capitol

HB 1383
1/31/2019
Job #31954

☐ Subcommittee
☐ Conference Committee

Committee Clerk Signature ReMae Kuehn

Explanation or reason for introduction of bill/resolution:

Relating to the creation of an environmental impact mitigation fund and advisory board and to mitigating direct environmental impacts; relating to exclusion and avoidance areas and the factors considered by the PSC when evaluating and designating sites, corridors, and routes; to provide for a report to the budget section; and to provide an appropriation

Minutes: Attachments # 1-10

Representative Mike Brandenburg, Sponsor: (Attachment #1) Section 49 deals with all forms of energy except oil. Oil is handled by the Industrial Commission but natural gas and pipelines are handled by Section 49.

The impact review committee is chaired by the Agriculture Commissioner. Additional members are listed in the Section 1 amendment. This bill addresses landowner involvement.

Section 2: Environmental impact mitigation fund. The money accumulated through mitigation would go to this committee who would be in charge of mitigating these acres. In federal law we have the ability to mitigate acres. The farmer can go out and mitigate acres but it costs $15,000 to $40,000 per acre to mitigate nuisance wetlands.

Money collected now goes to private organizations. The money would go into the impact mitigations fund.

In Emmons County wind towers were put on pasture land that had to be moved to crop land because of Game and Fish requirements. Crop land had no impacts. Pasture land has direct and indirect impacts.

Representative Headland: Explain where the money comes from that goes into the fund?

Representative Brandenburg: Refer to the Summary of Testimony on Mitigation. (Attachment #2) Page 2 shows expenditures.

The DOT tries to do their own program. There are cases where they have to buy wetland credits. The program is not working. They try to mitigate acres in the ditch. When they do that they have to raise the culverts which intrudes onto the land. Then there are salt areas that form. This bill would allow true mitigation. This is a win for agriculture and a win for hunters. This program would take the money and put it into a fund and use it to plant trees, grasses, etc. which will be good for hunting. The farmer gets nothing from a wetland area. The hunter gets nothing from a black hole.

Representative Headland: Where is the money coming from?

Representative Brandenburg: It is coming from the state. There is also money coming from the energy facilities and they make payments directly to the wildlife groups. Game and Fish does the mitigation and the money is directed to those organizations. Then those organizations go out and buy a conservation easement.

When you rent land, there are absentee landowners. The landowners take the easement but the renter can still farm. In about three years all the ditches are plugged and some of the land is not productive. This money is not going back to agriculture. That easement is a place where we can't go and energy can't go and the hunters don't get anything either.

This bill would allow the committee to set the rules and determine who would qualify for the mitigation costs.

When they look at a project they look at the land before they even talk to the farmers. They look at exclusion areas like pastureland. If you destroy a wetland, we have to deal with the direct impact. Indirect impacts cost about five times more than direct impacts.

In this bill it says the commission may not deal with indirect impacts. The indirect impacts that I am referring to come from Game and Fish as well as U.S. Fish and Wildlife. They work together to determine the impacts and how many acres. They go to the private organizations and figure out the benchmark price and they come up with a formula.

Refers to the page 9 of Attachment #2. Terry Traynor's letter is referring to four counties. Refers to three items in the middle of the page. It can cost up to $50,000 an acre to buy a wetland credit.

In this bill the Public Service Commission may not identify indirect impacts. They can identify direct impacts. They may not identify prime farmland.

We agree that parks belong to the public. Private landowners are not a part of this process. That is the reason for this bill.

Mitigating direct impacts on page 7, line 9 of Attachment #1.

Chairman Dennis Johnson: In some places you have "indirect impact" crossed out and some places it is back in.

Representative Brandenburg: The amendment needs to have the indirect impacts that are conducted by the contractors that work in the oil industry.

(29:30)
Will be bringing another amendment.

Senator Wanzek, Co-Sponsor: (Attachment #3) When an energy project considers a siting, they have to assess the indirect and direct impacts. The direct impacts are more quantitative and easier to determine. The indirect can be subjective. When an energy project is going to be sited, the landowner will be impacted. When it comes time to assess the impacts and determine how they go about mitigating, NRCS (Natural Resources Conservation Service) wanted 30% of the funds to administer it. Ducks Unlimited came in with a lower percentage.

The landowner is impacted the most. This is about giving agriculture and the landowner more of a voice in determining how we go about mitigating the damages.

Doug Goehring, North Dakota Agriculture Commissioner: (Attachment #4)

(38:00)
Representative Headland: Can you explain where the money comes from?

Doug Goehring: Companies are asked, after an assessment and evaluation has been made on the proposed project, to look at the indirect mitigation. The companies are asked to offset that mitigation by paying a sum of money. If you say a piece of land has value because of the wildlife, then any piece of land has value for wildlife. Then we are all owed money as farmers and ranchers.

Representative Headland: That is what we are trying to figure out.

Representative Richter: Energy companies and oil companies pay a fee which goes into a fund and then Game and Fish takes that fund and puts a wildlife area wherever they want to. They don't have to answer to anybody about why they put it there?

Doug Goehring: In direct mitigation, there is land being disturbed. You can see it. It is the indirect that is not as obvious. Once an assessment has been done as to what the disturbance is, the company is asked to make a donation to a wildlife organization. That payment is in lieu of the impacted area. That is arbitrary. This bill gives the ability to a farmer/rancher/landowner, knowing that land is evaluated, to allow funds to be used for experts to do an assessment. The farmer's interests need to be included even if they are not in the discussion.

Representative Headland: Where did the concept of indirect impacts come from?

Doug Goehring: In 2013 this was the brainchild of some that wanted to make sure that maybe we were protecting more wildlife habitat.

There were those who were working to shore up more wildlife habitat but also to stick it to energy. We see it with coal and oil. I won't dispute the direct mitigation. If there are things taking place in indirect, no one should be subject to that in my opinion.

It is the landowner that is being impacted the most.

(48:45)
Randy Melvin, President of the North Dakota Corn Growers Association:
(Attachment #5)

(51:05)
Chairman Dennis Johnson: How busy will the board be? Do you have an idea of how many projects?

Randy Melvin: I will defer to others.

Dennis Haugen, 1st Vice President, North Dakota Grain Growers: (Attachment #6)

Tom Bernhardt, Secretary/Treasurer of North Dakota Grain Growers Association:
(Attachment #7)

(57:50)
When NextEra Energy came to our farm, we signed contracts with them not Game and Fish. That is where the trouble started. We were to be notified about a year ago where the turbines would be placed. The tower was supposed to be on pasture land but they put it on productive farm ground.

Representative Skroch: Do more geese and ducks fly over your pasture than your rich farmland?

Tom Bernhardt: No, when we see ducks and geese land, they are in the cropland.

(1:00:15)
David Day, Rancher in Southern Burleigh County: To answer the question of where is the money going to come from: The project that I am involved in was supposed to have 71 turbines. The mitigated money would be in excess of $1.5 million. The company would have to pay for those turbines. We talked to Game and Fish about the mitigation. We are the ones managing the land. They tell us they studied the land from 20 miles away. They assured us that farm ground is exempt from any mitigation. They want to mitigate all the trails and the turbine pads in the pastures. We just spray it with roundup and seed some winter wheat, go to FSA and declare it as a field completely unmitigated. They said they cannot recreate pasture. Mother nature would take care of itself.

We need this bill. We don't need Game and Fish telling us what we can do on our land.

Chairman Dennis Johnson: When did this start as far as having to reseed the grasses?

David Day: We did that up by the Lone Tree Reservoir. They redid the highway running through it. They designated special grasses that had to go in those areas. The regular grass in the ditches cost about $50 to $60 per acre. On their land it was $3,000 per acre. When you are in a slough, cattails will come back not the wildflowers they want.

Vice Chair Trottier: It sounds like the money comes from the developers.

David Day: They are trying tell us what they can do on our land. We are the ones raising the game and letting the hunters on. We should get something out of it.

(1:05:40)
Mike Krumwiede, Wind Industry of North Dakota (WIND): (Attachment #8)

Representative Headland: You have located wind towers? When did these indirect impacts start?

Mike Krumwiede: I do not know.

Representative Richter: Is the shadow off of a blade an indirect impact?

Mike Krumwiede: I don't know. Whatever you can get the developer to agree to.

Levi Otis, Ellingson Companies and Water Management: The Land Association also supports HB 1383.

We do work all over the country in water management. North Dakota is under attack from the rest of the county on these wetland issues. We are treated differently in North Dakota than in other states. After a heavy rain our farmers need help. Give our farmers the tools that they are asking for so we can get on an even playing field with the rest of the country.

(1:10)
Pete Hanebutt, North Dakota Farm Bureau: We had a lot of discussion about this at our Farm Bureau annual meeting much of what has been said today. This is not anti-energy. The shadow isn't a problem for wildlife because the sun moves.

Opposition:

Randy Christmann, Public Service Commissioner: (Attachment #9)

Pipelines typically bore and don't damage much. Windfarms are usually on higher spots so wetlands haven't been a huge impact for us.

(1:22:36)
We had a natural gas processing plant near Killdeer that chose to do an expansion. One of the County Commissioners pointed out some indirect impacts. When it increased in size there would be more traffic which needed another route for emergency passage. That is an

indirect impact which with this bill would be over. We alerted the company to those problems and it was taken care of.

(1:28:50)
Representative Richter: On page 5 of your testimony where you said Game and Fish and U.S. Wildlife determine the unbroken prairie to be one of the highest valued resources in our state. Could the company's environmentalist dispute that and then come to some arbitration?

Randy Christmann: The Game and Fish did not wait for the hearing. They submitted the comments in advance. The company's environmental consultant was at the hearing and chose not to respond.

Carmen Miller, Director of Public Policy, Ducks Unlimited: (Attachment #10)

Chairman Dennis Johnson: Closed the hearing.

2019 HOUSE STANDING COMMITTEE MINUTES

Agriculture Committee
Peace Garden Room, State Capitol

HB 1383—Committee Work
2/7/2019
Job # 32382

☐ Subcommittee
☐ Conference Committee

Committee Clerk: ReMae Kuehn

Explanation or reason for introduction of bill/resolution:

Relating to the creation of an environmental impact mitigation fund and advisory board and to mitigating direct environmental impacts; relating to exclusion and avoidance areas and the factors considered by the PSC when evaluating and designating sites, corridors, and routes; to provide for a report to the budget section; and to provide an appropriation

Minutes: Attachment #1

Representative Brandenburg: (Attachment #1) Handed out amendments #.10003. Section 1—listed individuals on the impact review committee. The amendment adds one individual from Farm Bureau, one from Farmers Union, one from utility companies, and one from the association of rural cooperatives.

Section 2—budget section. The moneys accumulated and where the funding may be used. The mitigation money would be used for true mitigation like wetland acres concerning the Department of Transportation, airports, counties, energy, etc.

It is important to talk about the indirect impacts. We have had discussions with the Agriculture Commissioner as well as with the Public Service Commissioners in trying to come up with language that works. One of the issues we don't agree on are indirect impacts concerning wildlife. There is no state that does indirect impacts concerning mitigation for wildlife. We are the first state to do this. Game and Fish has what is called the Nebraska model. The Nebraska model is not proven with sound science. The Nebraska legislature banned it.
We have always dealt with indirect impacts concerning contractors. If a road needs to be built because another road has been damaged or if trees need to be planted because they were damaged, those are indirect impacts.

Section 3—talks about exclusion and avoidance areas. We have had good discussion in this area and can be resolved.

Section 4—evaluating applications and designations. This is what the Public Service Commission needs to consider. There are 11 different areas. At the bottom of page 6, the commission may not consider items described in items a. and b. We agree that if a wetland

is destroyed, it has to be taken care. That is a direct impact. Game and Fish figure out how much of an impact. They go out to a third party and come up with a value of the land in that area and then take it times the number of acres.

Section 5—mitigating direct impacts. Here is where we are dealing with the oil and gas industry. The makeup of this board would allow these impacts to be paid.

Section 6—exclusion and avoidance areas. Note item #2.

Section 7—factors in evaluating applications. The commission may not require payments for mitigation for any adverse indirect impacts. It doesn't say anything about direct. Again it is requiring payment for a third party.

Section 8—mitigating direct impacts. Note item #3.

Section 9—has an appropriation of $5,000,000. This is not an expense. It is income. This is money being spent right now. If you take what is coming out of the DOT and counties, it is somewhere between 5 and 10 million. Airports are projecting to be $17 million in the next 5 years. That doesn't even include the energy companies. The money would go into this fund to do mitigation.

We want to do the right thing when it comes to mitigation. We want to be able to mitigate these acres on our own land. The DOT and counties are putting them in the ditch which is encroaching on private land and creating higher salt levels. The DOT is looking for something better.

Representative Dobervich: Looking at the list of who would be on the review committee, I don't see the DOT or wildlife groups included. Has that been part of the discussion?

Representative Brandenburg: Their agenda and our agenda are different. The process of figuring out the impact will still happen from Game and Fish and U.S. Fish and Wildlife. This is a mitigation that is a win for farmers and hunters. Right now the money goes to a third party like Ducks Unlimited, Pheasants Forever, and Wildlife Society. They take the money and buy another easement. When they buy the easement, it is counterproductive.

This program takes wetland acres, where nothing grows and no hunter gets anything, and goes to a different area and creates a better hunting habitat. Both parties win.

Doug Goehring, North Dakota Agriculture Commissioner: In many cases if you are trying to mitigate rangeland with a wetland, they already have their experts. This bill and the funds that would be available would be to hire or contract with other resources such as environmental scientists, soil scientists, wildlife biologists, and others that can bring another perspective to the table. Agriculture would have a voice even if the farmer or landowner aren't there. Counties and DOT are sometimes put in positions where they have to mitigate a wetland and they have to pull water in places where they don't want to do that to the landowner. But they are only getting one engineer or scientist to work with. This would bring more people to talk about the direct and indirect impacts to the agriculture producers on that

land. The one that has not been considered in all of this is the landowner, the farmer, and the rancher.

Representative Headland: What does one representative of the utility companies mean?

Doug Goehring: It would be someone like Ottertail Power or MDU.

Representative Headland: Do we need to clarify that?

Doug Goehring: You could amend that.

Chairman Dennis Johnson: We will work on this bill tomorrow to give time for the committee to review the amendments.

2019 HOUSE STANDING COMMITTEE MINUTES

Agriculture Committee
Peace Garden Room, State Capitol

HB 1383—Committee Work
2/8/2019
Job #32526
☐ Subcommittee
☐ Conference Committee

Committee Clerk Signature ReMae Kuehn

Explanation or reason for introduction of bill/resolution:

Relating to the creation of an environmental impact mitigation fund and advisory board and to mitigating direct environmental impacts; relating to exclusion and avoidance areas and the factors considered by the PSC when evaluating and designating sites, corridors, and routes; to provide for a report to the budget section; and to provide an appropriation

Minutes:

Chairman Dennis Johnson: Additional amendment. On page 6, line 8 remove the overstrike from "and indirect" and the same on page 8, line 16 remove the overstrike from "and indirect." There are some legislators from western North Dakota that had concerns with the roads in the oil fields. Sometimes when they redo a road they wanted to make sure "and indirect" would be included. The sponsor's concern was with the wildlife and habitat. That is addressed on page 6, lines 23-27. That is the reason for the amendment to remove the overstrikes.

Representative Schreiber-Beck: Moved to adopt amendment # .10003.

Vice Chair Trottier: Seconded the motion.

Voice Vote taken. Motion passed.

Representative Schreiber-Beck: Moved to remove the overstrike from amendment #.10003 on pages 6 and 8 as previously described.

Vice Chair Trottier: Seconded the motion.

Voice Vote taken. Motion passed.

Representative Headland: Moved to add in “investor owned” before “utility” on page 2, line 5.

Representative Fisher: Seconded the motion.

Representative Richter: Does that get put into the bill or is it administrative rule?

Chairman Dennis Johnson: They would be identified in code what an investor owned utility is.

Voice Vote taken. Motion passed.

Representative Richter: Moved Do Pass as amended and rerefer to Appropriations

Representative Schreiber-Beck: Seconded the motion.

Representative Dobervich: The amendment in Section 1 that identifies who is on the committee, there are no conservation or environmental groups on the list because “they have opposing agendas.” I have a problem with not having all parties at the table from the beginning. So I will be opposed to this.

Representative Schreiber-Beck: They are the recipients of the funding. They wouldn’t have a vote.

A Roll Call vote was taken: Yes 10, No 2, Absent 2.

Do Pass as amended carries.

Representative Schreiber Beck will carry the bill.

Sixty-sixth
Legislative Assembly
of North Dakota

HOUSE BILL NO. 1383

Introduced by

Representatives Brandenburg, Boe, Headland, Howe, D. Johnson, Schmidt

Senators Dotzenrod, Erbele, Luick, J. Roers, Rust, Wanzek

A BILL for an Act to create and enact ~~two new sections~~a new section to chapter 4.1-01, a new section to chapter 49-22, and a new section to chapter 49-22.1 of the North Dakota Century Code, relating to the creation of an environmental impact mitigation fund ~~and an environmental impact advisory board~~ and to mitigating direct environmental impacts; to amend and reenact subsection 1 of section 4.1-01-18, sections 49-22-05.1, 49-22-09, 49-22.1-03, and 49-22.1-09 of the North Dakota Century Code, relating to the federal environmental law impact review committee, exclusion and avoidance areas and the factors considered by the public service commission when evaluating and designating sites, corridors, and routes; to provide for a report to the budget section; ~~and~~ to provide an appropriation; and to provide a continuing appropriation.

BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF NORTH DAKOTA:

SECTION 1. AMENDMENT. Subsection 1 of section 4.1-01-18 of the North Dakota Century Code is amended and reenacted as follows:

1. The federal environmental law impact review committee consists of:
   a. The commissioner, who shall serve as the chairman;
   b. The governor or the governor's designee;
   c. The majority leader of the house of representatives, or the leader's designee;
   d. The majority leader of the senate, or the leader's designee;
   e. One member of the legislative assembly from the minority party, selected by the chairman of the legislative management;
   f. One individual appointed by the lignite energy council;
   g. One individual appointed by the North Dakota corn growers association;
   h. One individual appointed by the North Dakota grain growers association;
   i. One individual appointed by the North Dakota petroleum council;

j. One individual appointed by the North Dakota soybean growers association; ~~and~~

k. One individual appointed by the North Dakota stockmen's association;

l. One individual appointed by the North Dakota farm bureau;

m. One individual appointed by the North Dakota farmers union;

n. One representative of the utility companies; and

o. One representative from the North Dakota association of rural electric cooperatives.

SECTION 2. A new section to chapter 4.1-01 of the North Dakota Century Code is created and enacted as follows:

Environmental impact mitigation fund - Report to budget section - Continuing appropriation.

1. The moneys accumulated in the environmental impact mitigation fund must be allocated as provided by law and as appropriated by the legislative assembly for distribution by the agriculture commissioner:
   a. To political subdivisions and state agencies to offset impacts of energy development to agricultural land;
   b. To landowners for the mitigation of agricultural land impacted by energy development; and
   c. To landowners of agricultural land who are subject to excessive mitigation of wetlands.
2. Funding may be used only for:
   a. Contracting for consultation with environmental scientists, wildlife biologists, biologists, soil scientists, range scientists, engineers, economists, or scientists in any other field determined to be relevant for services including the evaluation, assessment, and analysis of the physical composition and potential chemical properties of land determined to be impacted by energy development or land to be considered for mitigation;
   b. Reclamation, restoration, or mitigation of land, water resources, or wildlife habitats adversely impacted directly by energy development; and
   c. Offsetting or defraying costs of landowner mitigation in qualifying circumstances as determined by the advisory board.

3. The commissioner is not subject to chapter 54-44.4 when contracting for services under this chapter.

4. The ~~environmental impact advisory board~~federal environmental law impact review committee shall establish criteria for disbursement of environmental impact funds.

5. The commissioner shall make disbursements based upon the determinations made by the ~~environmental impact advisory board.~~federal environmental law impact review committee.

6. For purposes of this section, the federal environmental law impact review committee shall hold at least one regular meeting each year and additional meetings as the chairman determines necessary at a time and place set by the chairman. Upon written request of any four members, the presiding officer shall call a special meeting of the committee.

7. The federal environmental law impact review committee shall make determinations for the disbursement of grants in accordance with subsection 2 and provide those determinations to the commissioner.

8. The federal environmental law impact review committee shall provide a biennial report to the budget section of the legislative management.

9. All moneys in the environmental impact mitigation fund are appropriated to the commissioner on a continuing basis for the purposes set forth under subsection 2.

~~**SECTION 2.** A new section to chapter 4.1-01 of the North Dakota Century Code is created and enacted as follows:~~

~~**Environmental impact advisory board - Members - Report to budget section.**~~

~~1. There is created an environmental impact advisory board consisting of seventeen members. The advisory board consists of:~~

~~a. The commissioner, who shall serve as the presiding officer;~~

~~b. The governor or the governor's designee;~~

~~c. The majority leader of the house of representatives, or the majority leader's designee;~~

~~d. The majority leader of the senate, or the majority leader's designee;~~

~~e. One member of the legislative assembly from the minority party, selected by the chairman of legislative management;~~

~~f. One individual appointed by the lignite energy council;~~

~~g. One individual appointed by the North Dakota farm bureau;~~

~~h. One individual appointed by the North Dakota corn growers association;~~

~~i. One individual appointed by the North Dakota grain growers association;~~

~~j. One individual appointed by the North Dakota petroleum council;~~

~~k. One individual appointed by the North Dakota soybean growers association;~~

~~l. One individual appointed by the North Dakota stockmen's association;~~

~~m. One individual appointed by the North Dakota farmers union; and~~

~~n. Four members from the energy industry appointed by the governor based upon recommendations of entities representing the energy industry.~~

~~2. The advisory board shall hold at least one regular meeting each year and additional meetings as the chairman determines necessary at a time and place to be fixed by the chairman. Special meetings must be called by the presiding officer upon written request of any four members.~~

~~3. The advisory board shall make determinations for the disbursement of grants in accordance with subsection 2 of section 1 of this Act and provide those determinations to the commissioner.~~

~~4. The term of office of each appointed member of the board is four years and each term of office commences on the first day of July. The initial terms for the advisory board members must be staggered based upon a method determined by the board.~~

~~5. The advisory board shall provide a biennial report to the budget section of the legislative management.~~

SECTION 3. AMENDMENT. Section 49-22-05.1 of the North Dakota Century Code is amended and reenacted as follows:

49-22-05.1. Exclusion and avoidance areas - Criteria.

1. The commission shall develop criteria to be used in identifying exclusion and avoidance areas and to guide the site, corridor, and route suitability evaluation and designation process. The criteria also may include an identification of impacts and policies or practices which may be considered in the evaluation and designation process.

2. The commission may not identify prime farmland, unique farmland, or irrigated land as exclusion or avoidance areas when evaluating and designating geographical areas for site, corridor, or route suitability.

3. Except for electric transmission lines in existence before July 1, 1983, areas within five hundred feet [152.4 meters] of an inhabited rural residence must be designated avoidance areas. This criterion does not apply to a water pipeline. The five hundred foot [152.4 meter] avoidance area criteria for an inhabited rural residence may be waived by the owner of the inhabited rural residence in writing.

~~3.~~4. Areas less than one and one-tenth times the height of the turbine from the property line of a nonparticipating landowner and less than three times the height of the turbine or more from an inhabited rural residence of a nonparticipating landowner, must be excluded in the consideration of a site for a wind energy conversion area, unless a variance is granted. The commission may grant a variance if an authorized representative or agent of the permittee, the nonparticipating landowner, and affected parties with associated wind rights file a written agreement expressing the support of all parties for a variance to reduce the setback requirement in this subsection. A nonparticipating landowner is a landowner that has not signed a wind option or an easement agreement with the permittee of the wind energy conversion facility as defined in chapter 17-04. A local zoning authority may require setback distances greater than those required under this subsection. For purposes of this subsection, "height of the turbine" means the distance from the base of the wind turbine to the turbine blade tip when it is in its highest position.

SECTION 4. AMENDMENT. Section 49-22-09 of the North Dakota Century Code is amended and reenacted as follows:

49-22-09. Factors to be considered in evaluating applications and designation of sites, corridors, and routes.

~~The commission shall be guided by, but is not limited to, the following considerations, where applicable, to~~

1. To aid in the evaluation and designation of sites, corridors, and routes, the commission shall consider:

~~1.~~ a. Available research and investigations relating to the effects of the location, construction, and operation of the proposed facility on public health and welfare, natural resources, and the environment.

~~2.~~ b. The effects of new electric energy conversion and electric transmission technologies and systems designed to minimize adverse environmental effects.

~~3.~~ c. The potential for beneficial uses of waste energy from a proposed electric energy conversion facility.

~~4.~~ d. Adverse direct ~~and indirect~~ environmental effects that cannot be avoided should the proposed site or route be designated.

~~5.~~ e. Alternatives to the proposed site, corridor, or route which are developed during the hearing process and which minimize adverse effects.

~~6.~~ f. Irreversible and irretrievable commitments of natural resources should the proposed site, corridor, or route be designated.

~~7.~~ g. The direct ~~and indirect~~ economic impacts of the proposed facility.

~~8.~~ h. Existing plans of the state, local government, and private entities for other developments at or in the vicinity of the proposed site, corridor, or route.

~~9.~~ i. The effect of the proposed site or route on existing scenic areas, historic sites and structures, and paleontological or archaeological sites.

~~10.~~ j. The effect of the proposed site or route on areas ~~which are~~ unique because of biological wealth or because ~~they~~the areas are habitats for rare and endangered species.

~~11.~~ k. Problems raised by federal agencies, other state agencies, and local entities.

2. In the evaluation and designation of sites, corridors, and routes, the commission may not ~~consider~~:

a. ~~Adverse indirect environmental effects that cannot be avoided should the proposed site or route be designated; or~~Require payment for mitigation of any assessed adverse indirect impacts to wildlife or habitat;

b. ~~The~~Require payment to a third party nongovernmental organization for any assessed adverse direct or indirect impacts to wildlife or habitat; or

c. Consider indirect economic impacts of the proposed facility.

SECTION 5. A new section to chapter 49-22 of the North Dakota Century Code is created and enacted as follows:

Mitigating direct environmental impacts.

1. If an applicant elects to provide payment to mitigate any assessed adverse direct environmental, wildlife, or economic impact of a proposed site, corridor, route, or facility, the applicant shall make the payment to the agriculture commissioner.
2. ~~The~~Subject to subsection 3, the agriculture commissioner shall deposit into the environmental impact mitigation fund any moneys paid to mitigate the adverse direct environmental, wildlife, or economic impacts of a proposed site, corridor, route, or facility.
3. At the applicant's request, the agriculture commissioner may provide moneys directly to an organization approved by the federal environmental law impact review committee.

SECTION 6. AMENDMENT. Section 49-22.1-03 of the North Dakota Century Code is amended and reenacted as follows:

49-22.1-03. Exclusion and avoidance areas - Criteria.

1. The commission shall develop criteria to be used in identifying exclusion and avoidance areas and to guide the site, corridor, and route suitability evaluation and designation process.
2. The commission may not identify prime farmland, unique farmland, or irrigated land as exclusion or avoidance areas when evaluating and designating geographical areas for site, corridor, or route suitability.
3. Except for oil and gas transmission lines in existence before July 1, 1983, areas within five hundred feet [152.4 meters] of an inhabited rural residence must be designated avoidance areas.
   a. This criterion does not apply to a water pipeline.
   b. The five hundred foot [152.4 meter] avoidance area criteria for an inhabited rural residence may be waived by the owner of the inhabited rural residence in writing.
   c. The criteria also may include an identification of impacts and policies or practices which may be considered in the evaluation and designation process.

SECTION 7. AMENDMENT. Section 49-22.1-09 of the North Dakota Century Code is amended and reenacted as follows:

49-22.1-09. Factors to be considered in evaluating applications and designation of sites, corridors, and routes.

~~The commission is guided by, but is not limited to, the following considerations, when applicable, to~~

1. To aid in the evaluation and designation of sites, corridors, and routes, the commission shall consider:

~~1.~~ a. Available research and investigations relating to the effects of the location, construction, and operation of the proposed facility on public health and welfare, natural resources, and the environment.

~~2.~~ b. The effects of new gas or liquid energy conversion and gas or liquid transmission technologies and systems designed to minimize adverse environmental effects.

~~3.~~ c. The potential for beneficial uses of waste energy from a proposed gas or liquid energy conversion facility.

~~4.~~ d. Adverse direct ~~and indirect~~ environmental effects that cannot be avoided should the proposed site or route be designated.

~~5.~~ e. Alternatives to the proposed site, corridor, or route that are developed during the hearing process and which minimize adverse effects.

~~6.~~ f. Irreversible and irretrievable commitments of natural resources should the proposed site, corridor, or route be designated.

~~7.~~ g. The direct ~~and indirect~~ economic impacts of the proposed facility.

~~8.~~ h. Existing plans of the state, local government, and private entities for other developments at or in the vicinity of the proposed site, corridor, or route.

~~9.~~ i. The effect of the proposed site or route on existing scenic areas, historic sites and structures, and paleontological or archaeological sites.

~~10.~~ j. The effect of the proposed site or route on areas ~~that are~~ unique because of biological wealth or because the site or route is a habitat for rare and endangered species.

~~11.~~ k. Problems raised by federal agencies, other state agencies, and local entities.

2. In the evaluation and designation of sites, corridors, and routes, the commission may not ~~consider~~:

   a. ~~Adverse indirect environmental effects that cannot be avoided should the proposed site or route be designated; or~~Require payment for mitigation of any assessed adverse indirect impacts to wildlife or habitat;

   b. ~~The~~Require payment to a third party nongovernmental organization for any assessed adverse direct or indirect impacts to wildlife or habitat; or

   c. Consider indirect economic impacts of the proposed facility.

SECTION 8. A new section to chapter 49-22.1 of the North Dakota Century Code is created and enacted as follows:

Mitigating direct environmental impacts.

1. If an applicant elects to provide payment to mitigate any assessed adverse direct environmental, wildlife, or economic impact of a proposed site, corridor, route, or facility, the applicant shall make the payment to the agriculture commissioner.

2. ~~The~~Subject to subsection 3, the agriculture commissioner shall deposit into the environmental impact mitigation fund any moneys paid to mitigate the adverse direct environmental, wildlife, or economic impacts of a proposed site, corridor, route, or facility.

3. At the applicant's request, the agriculture commissioner may provide moneys directly to an organization approved by the federal environmental law impact review committee.

SECTION 9. APPROPRIATION. There is appropriated out of any moneys in the environmental impact mitigation fund in the state treasury, not otherwise appropriated, the sum of $5,000,000, or so much of the sum as may be necessary, to the agriculture commissioner for the purpose of providing grants to political subdivisions for the mitigation of environmental impacts, for the biennium beginning July 1, 2019, and ending June 30, 2021.

DP 2/8/19
1 of 3

19.0188.10004
Title.11000

Adopted by the Agriculture Committee

February 8, 2019

PROPOSED AMENDMENTS TO HOUSE BILL NO. 1383

Page 1, line 1, replace "two new sections" with "a new section"

Page 1, line 3, remove "and an environmental impact"

Page 1, line 4, remove "advisory board"

Page 1, line 4, after "reenact" insert "subsection 1 of section 4.1-01-18,"

Page 1, line 6, after "to" insert "the federal environmental law impact review committee,"

Page 1, line 8, remove "and"

Page 1, line 8, after "appropriation" insert "; and to provide a continuing appropriation"

Page 1, after line 9, insert:

"**SECTION 1. AMENDMENT.** Subsection 1 of section 4.1-01-18 of the North Dakota Century Code is amended and reenacted as follows:

1. The federal environmental law impact review committee consists of:

   a. The commissioner, who shall serve as the chairman;

   b. The governor or the governor's designee;

   c. The majority leader of the house of representatives, or the leader's designee;

   d. The majority leader of the senate, or the leader's designee;

   e. One member of the legislative assembly from the minority party, selected by the chairman of the legislative management;

   f. One individual appointed by the lignite energy council;

   g. One individual appointed by the North Dakota corn growers association;

   h. One individual appointed by the North Dakota grain growers association;

   i. One individual appointed by the North Dakota petroleum council;

   j. One individual appointed by the North Dakota soybean growers association; ~~and~~

   k. One individual appointed by the North Dakota stockmen's association;

   l. One individual appointed by the North Dakota farm bureau;

   m. One individual appointed by the North Dakota farmers union;

   n. One representative of an investor-owned utility companies; and

o. One representative from the North Dakota association of rural electric cooperatives."

Page 1, line 12, after "**fund**" insert "**- Report to budget section - Continuing appropriation**"

Page 2, line 11, replace "environmental impact advisory board" with "federal environmental law impact review committee"

Page 2, line 14, replace "environmental impact advisory board." with "federal environmental law impact review committee.

6. For purposes of this section, the federal environmental law impact review committee shall hold at least one regular meeting each year and additional meetings as the chairman determines necessary at a time and place set by the chairman. Upon written request of any four members, the presiding officer shall call a special meeting of the committee.

7. The federal environmental law impact review committee shall make determinations for the disbursement of grants in accordance with subsection 2 and provide those determinations to the commissioner.

8. The federal environmental law impact review committee shall provide a biennial report to the budget section of the legislative management.

9. All moneys in the environmental impact mitigation fund are appropriated to the commissioner on a continuing basis for the purposes set forth under subsection 2."

Page 2, remove lines 15 through 31

Page 3, remove lines 1 through 17

Page 5, line 1, remove the overstrike over "~~and indirect~~"

Page 5, line 17, remove "consider"

Page 5, line 18, remove "Adverse indirect environmental effects that cannot be avoided should the"

Page 5, replace line 19 with "Require payment for mitigation of any assessed adverse indirect impacts to wildlife or habitat;"

Page 5, line 20, replace "The" with "Require payment to a third-party nongovernmental organization for any assessed adverse direct or indirect impacts to wildlife or habitat; or

c. Consider"

Page 5, line 27, replace "The" with "Subject to subsection 3, the"

Page 5, after line 29, insert:

"3. At the applicant's request, the agriculture commissioner may provide moneys directly to an organization approved by the federal environmental law impact review committee."

Page 7, line 1, remove the overstrike over "~~and indirect~~"

Page 7, line 17, remove "consider"

DP 2/4/14
3 of 3

Page 7, line 18, remove "Adverse indirect environmental effects that cannot be avoided should the"

Page 7, replace line 19 with "Require payment for mitigation of any assessed adverse indirect impacts to wildlife or habitat;"

Page 7, line 20, replace "The" with "Require payment to a third-party nongovernmental organization for any assessed adverse direct or indirect impacts to wildlife or habitat; or

c. Consider"

Page 7, line 27, replace "The" with "Subject to subsection 3, the"

Page 7, after line 29, insert:

"3. At the applicant's request, the agriculture commissioner may provide moneys directly to an organization approved by the federal environmental law impact review committee."

Renumber accordingly

Date: 2/8/2019

Roll Call Vote #: 1

2019 HOUSE STANDING COMMITTEE
ROLL CALL VOTES
BILL/RESOLUTION NO. 1383

House **Agriculture** Committee

☐ Subcommittee

Amendment LC# or Description: 19.0188.10003

Recommendation

☒ Adopt Amendment
☐ Do Pass ☐ Do Not Pass ☐ Without Committee Recommendation
☐ As Amended ☐ Rerefer to Appropriations
☐ Place on Consent Calendar

Other Actions: ☐ Reconsider ☐ _____

Motion Made By Rep. Schreiber Beck Seconded By Rep. Trottier

Representatives	Yes	No	Representatives	Yes	No
Chairman Dennis Johnson			Rep. Ruth Buffalo		
Vice Chairman Wayne Trottier			Rep. Gretchen Dobervich		
Rep. Jake Blum					
Rep. Jay Fisher					
Rep. Craig Headland					
Rep. Dwight Kiefert					
Rep. Aaron McWilliams					
Rep. David Richter					
Rep. Bernie Satrom					
Rep. Cynthia Schreiber Beck			Voice Vote		
Rep. Kathy Skroch					
Rep. Bill Tveit			Motion passed		

Total Yes _____ **No** _____

Absent _____

Floor Assignment _____

If the vote is on an amendment, briefly indicate intent:

Date: 2/8/2019

Roll Call Vote #: 2

2019 HOUSE STANDING COMMITTEE
ROLL CALL VOTES
BILL/RESOLUTION NO. 1383

House **Agriculture** Committee

☐ Subcommittee

Amendment LC# or Description: Page 6, line 8 and page 8, line 16 of #10003 remove the overstrike from "and indirect"

Recommendation

☒ Adopt Amendment
☐ Do Pass ☐ Do Not Pass ☐ Without Committee Recommendation
☐ As Amended ☐ Rerefer to Appropriations
☐ Place on Consent Calendar

Other Actions: ☐ Reconsider ☐ _____

Motion Made By Rep. Schreiber Beck Seconded By Rep. Trottier

Representatives	Yes	No	Representatives	Yes	No
Chairman Dennis Johnson			Rep. Ruth Buffalo		
Vice Chairman Wayne Trottier			Rep. Gretchen Dobervich		
Rep. Jake Blum					
Rep. Jay Fisher					
Rep. Craig Headland					
Rep. Dwight Kiefert					
Rep. Aaron McWilliams					
Rep. David Richter					
Rep. Bernie Satrom					
Rep. Cynthia Schreiber Beck			Voice Vote		
Rep. Kathy Skroch					
Rep. Bill Tveit			Motion Passed		

Total Yes _____ **No** _____

Absent _____

Floor Assignment _____

If the vote is on an amendment, briefly indicate intent:

Date: 2/8/2019

Roll Call Vote #: 3

2019 HOUSE STANDING COMMITTEE
ROLL CALL VOTES
BILL/RESOLUTION NO. 1383

House **Agriculture** Committee

☐ Subcommittee

Amendment LC# or Description: Page 2, line 5 of #10003 add "investor owned" before "utility"

Recommendation

☒ Adopt Amendment
☐ Do Pass ☐ Do Not Pass ☐ Without Committee Recommendation
☐ As Amended ☐ Rerefer to Appropriations
☐ Place on Consent Calendar

Other Actions: ☐ Reconsider ☐ _____

Motion Made By Rep. Headland Seconded By Rep. Fisher

Representatives	Yes	No	Representatives	Yes	No
Chairman Dennis Johnson			Rep. Ruth Buffalo		
Vice Chairman Wayne Trottier			Rep. Gretchen Dobervich		
Rep. Jake Blum					
Rep. Jay Fisher					
Rep. Craig Headland					
Rep. Dwight Kiefert					
Rep. Aaron McWilliams					
Rep. David Richter					
Rep. Bernie Satrom					
Rep. Cynthia Schreiber Beck			Voice Vote		
Rep. Kathy Skroch					
Rep. Bill Tveit			Motion Passed		

Total **Yes** _____ **No** _____

Absent _____

Floor Assignment _____

If the vote is on an amendment, briefly indicate intent:

Date: 2/8/2019

Roll Call Vote #: 4

2019 HOUSE STANDING COMMITTEE
ROLL CALL VOTES
BILL/RESOLUTION NO. HB 1383

House **Agriculture** Committee

☐ Subcommittee

Amendment LC# or Description:

Recommendation

☐ Adopt Amendment
☒ Do Pass ☐ Do Not Pass ☐ Without Committee Recommendation
☒ As Amended ☒ Rerefer to Appropriations
☐ Place on Consent Calendar

Other Actions: ☐ Reconsider ☐

Motion Made By Rep. Richter Seconded By Rep. Schreiber Beck

Representatives	Yes	No	Representatives	Yes	No
Chairman Dennis Johnson	X		Rep. Ruth Buffalo		X
Vice Chairman Wayne Trottier	X		Rep. Gretchen Dobervich		X
Rep. Jake Blum	X				
Rep. Jay Fisher	X				
Rep. Craig Headland	X				
Rep. Dwight Kiefert	AB				
Rep. Aaron McWilliams	AB				
Rep. David Richter	X				
Rep. Bernie Satrom	X				
Rep. Cynthia Schreiber Beck	X				
Rep. Kathy Skroch	X				
Rep. Bill Tveit	X				

Total Yes 10 **No** 2

Absent 2

Floor Assignment Rep. Schreiber Beck

If the vote is on an amendment, briefly indicate intent:

REPORT OF STANDING COMMITTEE

HB 1383: Agriculture Committee (Rep. D. Johnson, Chairman) recommends **AMENDMENTS AS FOLLOWS** and when so amended, recommends **DO PASS** and **BE REREFERRED** to the **Appropriations Committee** (10 YEAS, 2 NAYS, 2 ABSENT AND NOT VOTING). HB 1383 was placed on the Sixth order on the calendar.

Page 1, line 1, replace "two new sections" with "a new section"

Page 1, line 3, remove "and an environmental impact"

Page 1, line 4, remove "advisory board"

Page 1, line 4, after "reenact" insert "subsection 1 of section 4.1-01-18,"

Page 1, line 6, after "to" insert "the federal environmental law impact review committee,"

Page 1, line 8, remove "and"

Page 1, line 8, after "appropriation" insert "; and to provide a continuing appropriation"

Page 1, after line 9, insert:

"**SECTION 1. AMENDMENT.** Subsection 1 of section 4.1-01-18 of the North Dakota Century Code is amended and reenacted as follows:

1. The federal environmental law impact review committee consists of:

   a. The commissioner, who shall serve as the chairman;

   b. The governor or the governor's designee;

   c. The majority leader of the house of representatives, or the leader's designee;

   d. The majority leader of the senate, or the leader's designee;

   e. One member of the legislative assembly from the minority party, selected by the chairman of the legislative management;

   f. One individual appointed by the lignite energy council;

   g. One individual appointed by the North Dakota corn growers association;

   h. One individual appointed by the North Dakota grain growers association;

   i. One individual appointed by the North Dakota petroleum council;

   j. One individual appointed by the North Dakota soybean growers association; ~~and~~

   k. One individual appointed by the North Dakota stockmen's association;

   l. One individual appointed by the North Dakota farm bureau;

   m. One individual appointed by the North Dakota farmers union;

   n. One representative of an investor-owned utility companies; and

o. One representative from the North Dakota association of rural electric cooperatives."

Page 1, line 12, after "**fund**" insert "**- Report to budget section - Continuing appropriation**"

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Page 2, line 14, replace "environmental impact advisory board." with "federal environmental law impact review committee.

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7. The federal environmental law impact review committee shall make determinations for the disbursement of grants in accordance with subsection 2 and provide those determinations to the commissioner.

8. The federal environmental law impact review committee shall provide a biennial report to the budget section of the legislative management.

9. All moneys in the environmental impact mitigation fund are appropriated to the commissioner on a continuing basis for the purposes set forth under subsection 2."

Page 2, remove lines 15 through 31

Page 3, remove lines 1 through 17

Page 5, line 1, remove the overstrike over "~~and indirect~~"

Page 5, line 17, remove "consider"

Page 5, line 18, remove "Adverse indirect environmental effects that cannot be avoided should the"

Page 5, replace line 19 with "Require payment for mitigation of any assessed adverse indirect impacts to wildlife or habitat;"

Page 5, line 20, replace "The" with "Require payment to a third-party nongovernmental organization for any assessed adverse direct or indirect impacts to wildlife or habitat; or

c. Consider"

Page 5, line 27, replace "The" with "Subject to subsection 3, the"

Page 5, after line 29, insert:

"3. At the applicant's request, the agriculture commissioner may provide moneys directly to an organization approved by the federal environmental law impact review committee."

Page 7, line 1, remove the overstrike over "~~and indirect~~"

Page 7, line 17, remove "consider"

Page 7, line 18, remove "Adverse indirect environmental effects that cannot be avoided should the"

Page 7, replace line 19 with "Require payment for mitigation of any assessed adverse indirect impacts to wildlife or habitat;"

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c. Consider"

Page 7, line 27, replace "The" with "Subject to subsection 3, the"

Page 7, after line 29, insert:

"3. At the applicant's request, the agriculture commissioner may provide moneys directly to an organization approved by the federal environmental law impact review committee."

Renumber accordingly

2019 HOUSE APPROPRIATIONS

HB 1383

2019 HOUSE STANDING COMMITTEE MINUTES

Appropriations Committee
Roughrider Room, State Capitol

HB 1383
2/13/2019
32642

☐ Subcommittee
☐ Conference Committee

Committee Clerk: Risa Bergquist

Explanation or reason for introduction of bill/resolution:
A BILL for an Act to create and enact two new sections to chapter 4.1-01, a new section to chapter 49-22, and a new section to chapter 49-22.1 of the North Dakota Century Code, relating to the creation of an environmental impact mitigation fund and an environmental impact advisory board and to mitigating direct environmental impacts; to amend and reenact sections 49-22-05.1, 49-22-09, 49-22.1-03, and 49-22.1-09 of the North Dakota Century Code, relating to exclusion and avoidance areas and the factors considered by the public service commission when evaluating and designating sites, corridors, and routes; to provide for a report to the budget section; and to provide an appropriation.

Minutes: Attachment 1

Chairman Delzer: Opens meeting on HB 1383.

Representative D. Johnson: Passes out **attachment 1** to the committee.

(5:20) Representative D. Johnson: There has been quite a few amendments and we found another one this morning. It is a true work in progress. It is a true mitigation bill with an established committee and the duties for mitigation have money from companies for these projects like roads and other infrastructure. This committee looks at the project and decides where it is best located and the money assessed for these programs are allocated. This would amount to around $5M or so and that is the amount this committee would work with. The amendments were either direct or indirect effects of wildlife and habitat.

(8:45) Representative Brandenburg: The Water of the USA board is the board working on this and we added in the Farm Bureau and Farm Union. The last interim to my knowledge is money being paid out with direct and indirect impacts. This money is going to Ducks Unlimited, Game and Fish, etc. Game and Fish works on mitigation costs using acres. This bill would have this money go to the Agriculture committee. The grain and corn growers with the agriculture committee were working together. The money would be used for true mitigation. You can go out and mitigate this money if you have a nuisance species on your land. The money is usually 2:1, 3:1 or sometimes 50:1.

Representative Brandenburg: **Attachment 1** shows a little about the Department of Transportation and a few other companies who have bought wetlands and shows their mitigation costs. The oil fields are paying too, but it is more of a secret. This bill came out of committee with a do pass. We are dealing with wildlife habitats based on indirect impacts. Begins to present on **page 5, line 9 of attachment 1.**

(14:55) Representative Brandenburg: The Agriculture committee removed the overstrike on the indirect environmental impact and we did not want to do that.

(15:10) Chris Kadrmas: The bill as introduces was the 19.0188.10000 version and the Agriculture committee approved version 19.0188.10004, so the first engrossment is 19.0188.11000 version with the amendment number being 19.0188.11001. If these amendments are adopted, it will become 19.0188.12000. You have to amend version 19.0188.11000.

(17:15) Representative Brandenburg: The overstrike on indirect impacts is being removed. The bill does true mitigation **(attachment 1)** and it takes the money and gives it to the Agriculture department and hands it out to the counties. Outlines **page 1 of attachment 1** in the mitigation expenditures box. The Game and Fish and Fish and Wildlife will still be doing what they do now, which is figuring out the mitigation for direct impacts, but not indirect impacts. The energy companies, Department of Transportation or something else would pay into this fund and then you can go out and do the mitigation. You can do nuisance wetlands and create the mitigation for this as well.

Chairman Delzer: We need to know how the money is going to flow.

Representative Brandenburg: The committee would make the determination on mitigation. For example, the Department of Transportation would need $500,000 for mitigation and they would work with the land owners to establish where the roads would go. So now, the farmer can take the mitigated acres in a corner and it is a win-win for farmers and hunters. It is also in Federal law, but it does cost $15,000 to $25,000 an acre to mitigate. This money is being put into Game and Fish and then makes the check out to these other departments.

(21:00) Chairman Delzer: How will that committee tell the Agriculture commissioner what to do? If Department of Transportation comes in and needs mitigation, how do you get it to the farmer? Will the committee have to drive or is there some other way?

Representative Brandenburg: If you can get mitigation on your land, they will drive to see it.

Chairman Delzer: There is an appropriation in the bill for the Agriculture commission; is there any restriction on how fast they can spend it or what happens if they do not?

Representative Brandenburg: Well if you look at the board I would think they will do the due diligence because the Agriculture Commissioner who serves as the chairman, the Governor, one from the House of Representatives and Senate, one from the minority party, Lignite Energy Council, Corn and Grain Growers, Petroleum Council and soybean growers.

Chairman Delzer: You have all of your amendments organized?

(22:45) Representative J. Nelson: Who actually has primacy in the mitigation arena today and why isn't that working?

Representative Brandenburg: Page 2 of attachment 1 has a layout of these figures, but the current program is just not working. The Department of Transportation has a program that works with Game and Fish and they go out and figure out how much mitigation the Department of Transportation has to do and then they have to monitor, which is extra costs.

Representative J. Nelson: Do they exist by rule?

Representative Brandenburg: I was surprised this was happening and I looked at all of the money flowing through here.

Chairman Delzer: Part of the problem is that they all exist on their own and this is trying to roll it all into one.

Representative J. Nelson: They established a team for mitigation? I am just trying to figure out how this got to the point it is at now.

Chairman Delzer: That is my understanding on Department of Transportation. I think the idea is very valid. We even had issues with FEMA (Federal Emergency Management Agency) in the floods.

Representative J. Nelson: Does this include the Interstate Highway system?

Representative Brandenburg: I am sure it does. Begins to present **page 9 and 10 of attachment 1**.

(28:45) Representative Schmidt: Why can't we use wetland mitigation for the Highway Department, there's different criteria for Game and Fish and the Highway Department**.** You can't use any integrity wetland; they want wetland that has been changed geographically. You can't just go buy something and say that works for the Highway Department. We should be mitigated for value not acre for acre because some acres have different values than others.

Chairman Delzer: That's stuff this committee could work on.

(31:15) Representative Bellew: I am confused where the money comes from because it is a $5M appropriation going into the Environmental Impact Fund, which is new.

Chairman Delzer: The mitigated dollars would go into that fund when they arrive. The appropriation is to give the Agriculture Commissioner the authority to spend the money. The dollars change hand in mitigation and the committee will decide where the money goes.

Representative Bellew: Where does the money come from?

Representative Brandenburg: A good example is Dickey County Wind Farm, where $557,000 is wrote out to Ducks Unlimited.

Chairman Delzer: Any time there's a company that wants to do something that someone has mitigation involved, there is a charge for that. Instead of it going to whoever they say it is going to, like Game and Fish or Ducks Unlimited, it will go to this committee and they appropriate it.

Representative Nathe: This bill is before us to give them the authority to spend the money out of that fund?

Chairman Delzer: Correct, it just gives them the spending authority through the appropriation. It does not cost the state anything, but it tries to compact the authorities working with this money. We will have to have a further discussion on this.

(34:05) Chairman Delzer: Closes meeting on HB 1383.

2019 HOUSE STANDING COMMITTEE MINUTES

Appropriations Committee
Roughrider Room, State Capitol

HB 1383
2/15/2019
32862

☐ Subcommittee
☐ Conference Committee

Committee Clerk: Parker Oswald

Explanation or reason for introduction of bill/resolution:

A BILL for an Act to create and enact two new sections to chapter 4.1-01, a new section to chapter 49-22, and a new section to chapter 49-22.1 of the North Dakota Century Code, relating to the creation of an environmental impact mitigation fund and an environmental impact advisory board and to mitigating direct environmental impacts; to amend and reenact sections 49-22-05.1, 49-22-09, 49-22.1-03, and 49-22.1-09 of the North Dakota Century Code, relating to exclusion and avoidance areas and the factors considered by the public service commission when evaluating and designating sites, corridors, and routes; to provide for a report to the budget section; and to provide an appropriation.

Minutes:

Chairman Delzer: Opens meeting on HB 1383.

Representative Brandenburg: Begins to outline **on page 5 of amendment 19.0188.11002**.

(3:25) Representative Brandenburg: This only deals with environmental issues and issues that arise from economic impacts like oil. This deals with direct environmental impacts.

Chairman Delzer: If we adopt these amendments, it would go right into the fund you proposed and would only be for direct impacts?

(4:50) Representative Brandenburg: **I move to adopt amendment 19.0188.11002. Seconded by Howe. Voice vote carries**.

(5:45) Representative Brandenburg: **Moves to do pass as amended. Seconded by Representative Jim Schmidt. Motion carries with 18 yes, 1 no and 2 absent. Representative Schreiber-Beck will carry.**

DP 2/13/19

19.0188.11002
Title.12000

Prepared by the Legislative Council staff for
Representative Brandenburg
February 13, 2019

PROPOSED AMENDMENTS TO ENGROSSED HOUSE BILL NO. 1383

Page 5, line 3, overstrike "and indirect"

Page 5, line 9, remove the overstrike over "~~and indirect~~"

Page 5, line 20, after "indirect" insert "environmental effects or"

Page 5, line 20, remove "to"

Page 5, line 21, remove "wildlife or habitat"

Page 5, line 21, after the underscored semicolon insert "or"

Page 5, line 23, after "indirect" insert "environmental effects or"

Page 5, line 23, remove "to wildlife or habitat; or"

Page 5, line 24, remove "c. Consider indirect economic impacts of the proposed facility"

Page 5, line 29, remove ", wildlife, or economic"

Page 6, line 3, remove ", wildlife, or economic"

Page 7, line 10, overstrike "and indirect"

Page 7, line 16, remove the overstrike over "~~and indirect~~"

Page 7, line 27, after "indirect" insert "environmental effects or"

Page 7, line 27, remove "to"

Page 7, line 28, remove "wildlife or habitat"

Page 7, line 28, after the underscored semicolon insert "or"

Page 7, line 30, after "indirect" insert "environmental effects or"

Page 7, line 30, remove "to wildlife or habitat; or"

Page 7, line 31, remove "c. Consider indirect economic impacts of the proposed facility"

Page 8, line 5, remove ", wildlife, or economic"

Page 8, line 9, remove ", wildlife, or economic"

Renumber accordingly

Date: 2/15/2019
Roll Call Vote #: 1

2019 HOUSE STANDING COMMITTEE
ROLL CALL VOTES
BILL/RESOLUTION NO. 1383

House Appropriations Committee

☐ Subcommittee

Amendment LC# or Description: **19.0188.11002**

Recommendation: ☒ Adopt Amendment
☐ Do Pass ☐ Do Not Pass ☐ Without Committee Recommendation
☐ As Amended ☐ Rerefer to Appropriations
☐ Place on Consent Calendar

Other Actions: ☐ Reconsider ☐ _____

Motion Made By **Representative Brandenburg** Seconded By **Representative Howe**

Representatives	Yes	No	Representatives	Yes	No
Chairman Delzer					
Representative Kempenich					
Representative Anderson			Representative Schobinger		
Representative Beadle			Representative Vigesaa		
Representative Bellew					
Representative Brandenburg					
Representative Howe			Representative Boe		
Representative Kreidt			Representative Holman		
Representative Martinson			Representative Mock		
Representative Meier					
Representative Monson					
Representative Nathe					
Representative J. Nelson					
Representative Sanford					
Representative Schatz					
Representative Schmidt					

Total (Yes) _____ No _____

Absent _____

Floor Assignment _____

Voice Vote/Motion Carries

Date: 2/15/2019
Roll Call Vote #: 2

2019 HOUSE STANDING COMMITTEE
ROLL CALL VOTES
BILL/RESOLUTION NO. HB 1383

House Appropriations Committee

☐ Subcommittee

Amendment LC# or Description: _____

Recommendation: ☐ Adopt Amendment
☒ Do Pass ☐ Do Not Pass ☐ Without Committee Recommendation
☒ As Amended ☐ Rerefer to Appropriations
☐ Place on Consent Calendar

Other Actions: ☐ Reconsider ☐ _____

Motion Made By Rep. Brandenburg Seconded By Rep. Schmidt

Representatives	Yes	No	Representatives	Yes	No
Chairman Delzer	X				
Representative Kempenich	X				
Representative Anderson	X		Representative Schobinger	X	
Representative Beadle	A		Representative Vigesaa	X	
Representative Bellew	X				
Representative Brandenburg	X				
Representative Howe	X		Representative Boe	X	
Representative Kreidt	X		Representative Holman	X	
Representative Martinson	X		Representative Mock		X
Representative Meier	X				
Representative Monson	A				
Representative Nathe	X				
Representative J. Nelson	X				
Representative Sanford	X				
Representative Schatz	X				
Representative Schmidt	X				

Total (Yes) 18 No 1

Absent 2

Floor Assignment **Representative Schreiber-Beck**

Motion Carries

REPORT OF STANDING COMMITTEE

HB 1383, as engrossed: Appropriations Committee (Rep. Delzer, Chairman) recommends **AMENDMENTS AS FOLLOWS** and when so amended, recommends **DO PASS** (18 YEAS, 1 NAYS, 2 ABSENT AND NOT VOTING). Engrossed HB 1383 was placed on the Sixth order on the calendar.

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Page 5, line 20, after "indirect" insert "environmental effects or"

Page 5, line 20, remove "to"

Page 5, line 21, remove "wildlife or habitat"

Page 5, line 21, after the underscored semicolon insert "or"

Page 5, line 23, after "indirect" insert "environmental effects or"

Page 5, line 23, remove "to wildlife or habitat; or"

Page 5, line 24, remove "c. Consider indirect economic impacts of the proposed facility"

Page 5, line 29, remove ", wildlife, or economic"

Page 6, line 3, remove ", wildlife, or economic"

Page 7, line 10, overstrike "and indirect"

Page 7, line 16, remove the overstrike over "~~and indirect~~"

Page 7, line 27, after "indirect" insert "environmental effects or"

Page 7, line 27, remove "to"

Page 7, line 28, remove "wildlife or habitat"

Page 7, line 28, after the underscored semicolon insert "or"

Page 7, line 30, after "indirect" insert "environmental effects or"

Page 7, line 30, remove "to wildlife or habitat; or"

Page 7, line 31, remove "c. Consider indirect economic impacts of the proposed facility"

Page 8, line 5, remove ", wildlife, or economic"

Page 8, line 9, remove ", wildlife, or economic"

Renumber accordingly

2019 SENATE ENERGY AND NATURAL RESOURCES

HB 1383

2019 SENATE STANDING COMMITTEE MINUTES

Energy and Natural Resources Committee
Fort Lincoln Room, State Capitol

HB 1383
3/7/2019
Job Number 33398

☐ Subcommittee
☐ Conference Committee

Committee Clerk: Marne Johnson

Explanation or reason for introduction of bill/resolution:

A bill relating to the creation of an environmental impact mitigation fund and to mitigating direct environmental impacts; relating to the federal environmental law impact review committee, exclusion and avoidance areas and the factors considered by the public service commission when evaluating and designating sites, corridors, and routes; to provide for a report to the budget section; to provide an appropriation; and to provide a continuing appropriation.

Minutes: 20 Attachments

Chair Unruh: Opened the public hearing. All members were present.

Representative Mike Brandenberg, District 28 (0:10) Introduced the bill. This is a bill for agriculture that deals with working on mitigation issues that are happening throughout state. Six months ago, it came about that mitigations issues occurred on several wind projects and agriculture was not represented at the discussions. There is money that is being mitigated for environmental issues going to private organizations; and state agencies are being used to do that. In Dickey and Emmons Counties, there were projects where wind towers were moved off of pastureland onto farmland. In talking about the indirect and direct impacts, we came to the conclusion that agriculture needs to be a part of this discussion. Whether it's an oil well, pipeline, or wind farm; all these have mitigation issues. We agree on direct impacts, there's no question. Indirect impacts are fuzzy. There is not a consistent model; there are probably 30-50 models. The science is not there. The Agriculture Commissioner and his staff were involved to provide voice for agriculture.
Section 1 sets up the committee, it's the old WOTUS committee; we're not creating new committee, we did add some new members; the farm bureau, etc. (listed the members from the bill.)
Section 2 - Reports to the budget. Moneys in the fund must be allocated to the political subdivisions, state agencies, and landowners affected by excessive mitigation.

Chair Unruh: What does 'excessive mitigation' mean?

Representative Brandenberg: Excessive mitigation, as you look at mitigation costs of trying to mitigate these acres, there are cases where there are requirements for up to 50-1. 1-1 or 3-1 is the standard when you try to mitigate acres with NRCS.

Chair Unruh: Is it up to the committee to determine where the excessive line is drawn?

Representative Brandenberg: The process in place right now will still happen. Game and Fish will still go through the process of determining how much mitigation there is. Right now there is no basis to disagree with them. If you look at the email I provided from Terry Traynor (**please see attachment 1**) That's excessive mitigation, where 50% of the cost of an $800,000 is mitigation.

Senator Roers: Is that $100,000 per acre?

Representative Brandenberg: It could be, he quotes in here up to $50,000 per acre, I couldn't say for sure.

Chair Unruh: I've participated in these mitigation projects; I can attest to the fact that excessiveness does happen through that process. If we set up a structure like this, do we run the risk of becoming like the Corps and set up stage to require more mitigation rather than something reasonable?

Representative Brandenberg: I hope not; I hope that we can be like filter system to have a voice in these projects. Right now we don't know what's happening in the projects. I have people impacted and decisions made because of the requirements of Game and Fish for mitigation. That's the frustration, you're taking the rights of people that own the abstracts and creating rules, but not rules, and subjective things are happening, all because of the cost of mitigation.
Moving to subsection 2 of reporting to budget; funding may be used for contracting with scientists. We have to do this right. An example would be the DOT. There is a project on highway 20. They mitigated wetland acres in ditch, but it created saline spots, within 3-5 years it's taken 5-10 acres to unproductivity. In this scenario, he could take the money and do true mitigation. You mitigate the wetland acres on his farm, move the nuisance wetlands, there's a benefit back to farmer and hunters. The landowner/hunter relations are strained. If we're going to do true mitigation, we need to do it where people are affected.

Chair Unruh: I have a question, top of page 3, 'the commissioner is not subject to chapter 54-44.4,' would you talk about that?

Representative Brandenberg: That's Procurement. You've got people that are specialty field. If you go to NDSU or people affiliated with this industry. In this industry of private soil scientists, the Ag Commissioner could talk more about this, you can't put a bidding process out and expect to get the right results.
Section 3 - exclusion and avoidance areas; this talks about the commission not identifying prime farmland as exclusion or avoidance areas. Prime farmland is anything with a high productivity factor. Unique farmland is unique crops, sugar beets, potatoes etc. You don't want to put wind towers in those areas. The exclusion areas create winners and losers.

Chair Unruh: Would you be amenable to require companies to save that topsoil, from those unique areas, if we're not going to exclude them from development?

Representative Brandenberg: It's the classification of the land. It's more about the property rights of people who own the land; if they choose to allow an energy facility to be built there, or a pipeline etc., it should be up to the property owner. Right now, they are being passed over and they don't know it.
Section 4 - Factors to be considered; it goes through all the conditions. (He read through pages 4-5 of the proposed bill) (24:20-26:40) Section 6 defines exclusion and avoidance areas. Section 7 is a duplicate from another section of law.

Chair Unruh: Your goal with section 7 and the previous one that is identical, is to remove indirect environmental anything from the Siting Act?

Representative Brandenberg: It takes out indirect impacts. We've taken out economic impacts, at the request of the energy companies. We aren't concerned about that. If somebody wants to build a house or give money to the community, they should be able to do that. If some energy company wanted to pay indirect impacts, they could; it's silent on that issue; other than that the commission could not require payments.

Chair Unruh: You've got indirect environmental effects removed, and then you mentioned that you wanted indirect economic impacts removed as well? That remains in the bill.

Representative Brandenberg: The indirect environmental impacts may not happen.

Chair Unruh: They can't be considered a required payment. You mentioned indirect economic impacts.

Representative Brandenberg: In an earlier version of the bill, there was economic impacts, but we took them out. We're only dealing with environmental direct impacts for payment purposes. The Commission may not require indirect impacts, or any payments for indirect impacts; but if they do it on their own, that's another matter.
There is no general fund money in here, no special fund money; this is money that the Ag Commission or this committee can receive that's being paid in mitigation costs right now. Whether it's coming from the DOT, airports, counties or energy facility that the direct impacts would come to this committee. Then they could also receive money, and use the money to do true mitigation.
Please see attachment #2 for Wetland Mitigation - grand total for DOT. Please see attachment #3 for airport mitigation data. (23:40) I think this is going to help is ways we don't even realize. The DOT and counties are looking for a better program.

Senator Roers: These moneys, where are they going today?

Representative Brandenberg: You'd have to ask the DOT and the counties, they're going to these groups; the mitigation is figured out by Game and Fish, they figure out acres and the formulation of how many offsets, the money is ending up in private organization's hands. Related the 44 wind towner story from Emmons County again. (37:30-40:05)

Chair Unruh: I think DOT has their own program, we'll make sure we hear from them.

Senator Roers: You mentioned the relationship with the hunters. You didn't bring that up as you went through the bill. Is it in here?

Representative Brandenberg: This committee is going to take this money and create true mitigation and also mitigate those acres and create habitat for hunters. The commissioner could speak better to that.

Vice-Chair Kreun: I see you visited with Mr. Traynor, the counties, and DOT, if you start looking in here, you have 15 members on this commission, and not one engineer. I think it would behoove us to at least have one.

Representative Brandenberg: This bill has been amended 16 times. I don't know if I can make it perfect.

Vice-Chair Kreun: I don't disagree with you. We went through flood protection, we dealt with issues, we had to take some property, those issues did arise. Who is going to represent those people?

Senator Terry Wanzek, District 29 (43:40) Testified in support. I see two components to this bill; part is addressing how you assess the impacts. I know there are indirect impacts, which the bill removes. I don't have expertise to determine how those impacts come about or what those impacts are. The second part of the bill, once the impacts have been assessed; where does money go? The projects we're talking about, many times, where are they going to be placed? On my land. Where is the mitigation going to happen? On my land. It's the fact that landowners aren't being asked enough what their opinion is, and how they could address the situation. I understand that once the impact was assessed, that dollar amount went directly to one entity, who has one narrow perspective on how we deal with mitigation. I don't feel comfortable as a landowner, I question the appropriateness of the state government determining what the impacts are, and it's going to a private entity. In this this bill, it's going to go to a board that is developed by the state legislature, in our code, it's going to address how they are mitigated. I feel more comfortable that it goes through that process. I'm all for working cooperatively as a landowner, addressing environmental issues. I've wondered why I can't get together with these people and explain how I feel we might address their concern. I want to see a fairer mechanism for determining mitigation utilization. The bill doesn't give me the opportunity to inject my opinion, but the makeup of the board makes me more comfortable that my way of thinking will be represented.

Representative Cindy Schreiber-Beck, District 25 (48:30-49:40) Testified in favor, please see attachment #4.

Doug Goerhing, North Dakota Agriculture Commissioner (50:05-51:30) Testified in favor, please see attachment #5. There have been a lot of discussions with those that have been involved in this bill, but the reality is they are not involved in the process. The only thing that would take place is when a project come forward, the committee would decide if that project would be eligible for resources. The resources primarily that are so crucial is the fact that we would get a second opinion, instead of just Fish and Wildlife biologists and scientists

involved in this process, you bring in other scientists and professionals that have the ability to go and work with others to determine what the best mitigation is. That's where agriculture hasn't been represented, we have no voice at table. You have to have a degree. They are the only ones that have credibility to be there.

Mike Krumweide, WIND (54:30-56:20) please see attachment #6.

Chair Unruh: In the last paragraph, where you talk about direct impacts and mitigation payments, how does it work now, if there are direct payments and trees that need to be replaced? Are landowners involved?

Mike Krumweide: I don't know, the direct impacts are being assessed to the companies and then they use those moneys to go out and do their own mitigation, or sent to those areas with wildlife and fish. I don't have all the details; I can get the answer for you.

Tom Bernhardt, North Dakota Grain Growers Association (58:05-1:02:00) Testified in favor, please see attachment #7.

Chair Unruh: Do you think if we pass this bill that we will be able to stop this from happening?

Tom Bernhardt: Yes, I do. What happened to me, when the developer first came to us. Initially you don't know if you want to participate. Once you realize the economic shot in the arm, you realize you need to join up. My rancher friends were excited to have extra income, once it moved, they receive nothing. It's heartburn. I visited with some friends, the companies worked with them, that didn't happen here, the result is the footprint got so large because you start taking chunks of land out to get to that number.

Dennis Haugen, North Dakota Grain Growers Association (1:05:30-1:07:25) Testified in favor, please see attachment #8.

Paul Thomas, Vice President, North Dakota Corn Growers (1:07:47-1:09:10) Testified in favor, please see attachment #9.

Carlee McLeod, President, Utility Shareholders of North Dakota (1:09:40-1:11:30) Testified in favor, please see attachment #10.

Chair Unruh: The appropriation has me confused.

Carlee McLeod: The appropriation comes out of any funds that would be put into the fund. It's not a general fund appropriation.

Chair Unruh: You have that companies could elect to put their dollars in, but nobody is required to put money in the fund.

Carlee McLeod: We have asked this question of the bill sponsor and the Ag Commissioner to clarify that. This is an option for people who don't want to do their mitigation on their own, or there is a state program that exists, or this committee already has centers that they feel would be better at doing it than themselves. This is an option. As utilities, we are large

companies, we have contractors at our disposal. I don't see that we ourselves would be using that fund, but they have assured us, this is a voluntary option for those who would elect. We feel that this is important to pass along with SB 2261. SB 2261 clarifies that no agency has ability to mandate mitigation payments, this bill only says that you can't mandate indirect payments, we do need both to pass to do what we feel is best for the companies and the environment.

Zac Smith, ND Association of Rural Electric Cooperatives (1:13:40) Testified in favor. I just came from my board meeting, we discussed this bill and SB 2261, and the consensus is that we are supportive. We'd like to see both of those things move forward. The concern has been well documented from previous speakers, the gentleman from Linton echoed a lot of what has been discussed around the boardroom and some of the concerns of what this bill aims to do.

Pete Hanebutt, North Dakota Farm Bureau (1:14:45) Testified in favor. We've been following this since the interim committee; Representative Brandenburg was a member of our delegate body. You understand impacts on rural North Dakota. We are very supportive of this bill.

David Day, Landowner, Burleigh County (1:15:33) Testified in favor. I had an opportunity to sit with Game and Fish people about this mitigation. They admit they don't make my payments, but they want to tell us what to do on our land, which is wrong. Farmland is exempt from mitigation. You can stake it out, spray with weed killer, have that designated as a field, and have it excluded. Game and Fish doesn't like it, because we can take them out of the scenario. I'm in favor of the mitigation deal, whatever we can do to limit Game and Fish.

Chair Unruh: Do you feel the companies that the projects, that have obtained leases from you, have some more obligation than what they currently have? Like more obligations for mitigation, or an obligation to consider that the project is larger, there's more than one turbine or landowner. That there are bigger impacts that are happening.

David Day: I was a private consultant for the company. When they did all the micro siting of the turbines, I was involved in that. We went to the best locations, for the farmer and the company, found the best place for a road, how to avoid a wetland; we were already looking at those things, without Game and Fish trying to tell us what to do.

Julie Ellingson, Stockman's Association, stood in favor.

Julie Fedorchek, Commissioner, PSC (1:19:30-1:29:20) Testified in opposition, please see attachment #11. We consult with 27 agencies on every application. The commission is opposed to part of this bill. I want to offer language for amendment. **Please see attachment #12.** This language attempts to recognize the core issue of concern and to clarify in law the current policy of the Commission, which is that we don't require payments for indirect or direct impacts. Our thoughts boil down the whole bill with the exception of the first couple sections, which creates that new committee and the Ag Commission's authority to take those funds, 'the commission may not condition the issuance of a certificate or permit on the applicant providing a mitigation payment assessed or requested by another state agency or entity to offset a negative impact on wildlife habitat.' We do not consider this something that we

currently do, we have memorialized voluntary agreements in past orders that were decided on by the company, but we have not required those mitigation payments. This would make it clear that we can't do that.

Chair Unruh: Current orders from the PSC on projects like these, do they include mitigation requirements, like on the ground replacing trees, that type of thing?

Julie Fedorchek: Yes, we do require a wide variety of mitigation, but not mitigation payments. Examples include the tree and shrub, it would include soil segregation practices, it would include limiting fugitive dust emissions, restoring the land to the original state. There is mitigation required, but no payments.

Chair Unruh: When you put those mitigation requirements on companies, are they those on the ground piece parts of the mitigation, are they done on the land affected or are companies allowed to replace anywhere?

Julie Fedorchek: That is up to landowner, if they want that, they have a discussion with the company, if not, then the company seeks other locations.

Chair Unruh: Those mitigations requirements are tied to the landowner as well as the company? We've heard concerns from our landowners here about making sure that they are participants in the mitigation process, I'm trying to figure out if the way the Commission currently requires mitigation, if that includes landowners in the process, or if the companies are allowed to put that mitigation wherever they want.

Julie Fedorchek: The landowners are included in the conversations. We require the company to work with them to determine if they want the trees, for example, if they do, where they get placed, if they don't, then they go elsewhere.

Senator Cook: Did you give the same testimony in the House?

Julie Fedorchek: I did not. Commissioner Christmann provided testimony, I believe it was similar. We've talked of this extensively, all three of us have the same concerns that I have expressed.

Jerry Doan, Rancher, McKenzie (1:35:10-1:43:30) Testified in opposition, please see attachment #13.

Senator Piepkorn: Representative Brandenburg said the science is not there regarding indirect impacts, can you say the science is there?

Jerry Doan: I am not a scientist; I know Audubon has proven that 70% of meadowlarks will move away from towers. There's definitely issues. Representative Brandenburg misspoke when he said some of these funds go to Audubon, that is not true, Audubon never mitigates these things. This is a bigger problem, I think we're over billing a bill, we've overdone it another layer of bureaucracy that can be problematic.

Chair Unruh: When we are talking about indirect impacts, make sure we specify if it's actual environmental impact or if it's actually associating a cost to an indirect impact. I think that's where we are getting confused.

Carmen Miller, Ducks Unlimited (1:46:05-) Testified in opposition, provided attachments #14-#16. Our involvement with mitigation in the state is new and a small segment of our work. There are some contexts for it; we are the sole contractor for the Army Corps of Engineers for their section 404 permit program. We operate an 'in lieu fee mitigation program', developers can purchase credits, then we have 3 years to satisfy the mitigation requirements. When development occurs, wetlands are impacted. We have experienced rapid growth in energy and development in general, that development has impacted wetlands all over the state. The contractor etc. that is engaging in that infrastructure development has options for dealing with that mitigation: they can undertake it themselves, purchase credits, or purchase credits from an in lieu fee provider. We started in 2014, in that time we have sold 120 credits, they have to be satisfied within same watershed, we have worked with many entities. There is no set price for a credit of wetland mitigation, it's complicated, it's not acre for acre, you have to replace the biological impact in function and value. Our program is popular; people enjoy having another option. The City of Bismarck saved $1 million using our program when they built the new high school. With respect to PSC siting and wind energy development, we acted as a contractor for Game and Fish, in respect to the Foxfire Wind Energy Program. We simply provided the services to them. There is misunderstanding about that payment, 95% of that went to North Dakota landowners to accomplish that mitigation. **Please see attachment #14 (1:51:30-1:57:15). Please see attachments #15 and #16 for studies on duck behavior.**

Todd Kranda, North Dakota Petroleum Council (1:58:15-2:02:25) Testified in opposition see attachment #17. The biggest part of HB 1383 is that it incorporates what you did last session in dividing out our Siting Acts. You created a section that dealt with electric facilities and the oil industry. This bill duplicates the type of provisions that are experienced on one side of the ledger only. Everything I heard today was wind related. The HB 1144 splits into two so you don't have this problem. We don't have the impact that one industry has. We should be addressing only 49-22, not 49-22.1, which is our industry's Siting Act. The oil industry not experiencing the same issues that you heard with the wind and electric facilities are dealing with. It seems primarily to be that side of the equation. We have some concerns about the unintended consequences of changing our side of the ledger, we don't see the same problems. The easy amendment you can do is strike page 6, line 7 through page 8, line 10. Doesn't affect us, leaves everyone else in. If you take that out, you have our support with amendment. As an example, one of those issues that affect wind and electric was the tree and shrub provision entered into as addendum to siting permit. We have an established tree program; wherever our pipeline may go, we interrupt some trees and shrubs, we agree to replace those. The landowner has the first option, if they want them, they get them. In 2018, our program planted 58,000, we have more planned more for this year.

Dave Nehring, North Dakota Visionkeepers (2:02:40-2:04:45) Testified in opposition see attachment # 18 for testimony and # 19 for a policy resolution by the Western Governors Association.

John Bradley, North Dakota Wildlife Federation (2:05:25-2:06:05) Testified in opposition, please see attachment # 20.

No neutral agency testimony.

Chair Unruh: Closed the hearing.

2019 SENATE STANDING COMMITTEE MINUTES

Energy and Natural Resources Committee
Fort Lincoln Room, State Capitol

HB 1383
3/15/2019
Job Number 33815

☐ Subcommittee
☐ Conference Committee

Committee Clerk: Marne Johnson

Explanation or reason for introduction of bill/resolution:

A bill relating to the creation of an environmental impact mitigation fund and to mitigating direct environmental impacts; relating to the federal environmental law impact review committee, exclusion and avoidance areas and the factors considered by the public service commission when evaluating and designating sites, corridors, and routes; to provide for a report to the budget section; to provide an appropriation; and to provide a continuing appropriation.

Minutes: No attachments

Chair Unruh: One thing we heard a lot about in the public hearing was DOT's mitigation in the state of North Dakota. So now we'll hear from them.

Matt Gangness, Environmental Transportation Services Division, North Dakota DOT (0:30-3:45) We manage some environmental mitigation programs at the DOT. I have three points to work off of. I'll run through them; first, how does this bill affect the DOT? To our knowledge HB 1383 doesn't affect the DOT, as it's applicable to chapter 49, concerning the PSC. Sudden process allows the chapter 4 with the environmental impact mitigation fund and federal environmental law impact review committee.
How does the DOT handle the mitigation program now? The DOT delivers federal aid roadway projects, funded through federal highway administration, which requires federal environmental documentation and federal environmental clearance. The environmental documentation for federal highway clearance requires all project actions and project impacts to be studied and analyzed. The federal highway administration will then review the environmental document and approve environmental clearance to the project. The most frequent type of highway project impact that gets identified with our environmental document process that requires mitigation is wetland impacts. Executive Order 11990 in section 4 for the clean water act require wetland mitigation for permanent wetland impacts. The department mitigates project wetland impacts on site with the project or within one of the Department managed wetland mitigation banks. Another project impact that can require mitigation are tree and shrub impacts. These impacts are mitigated by planting new shrubs and trees at various shrub tree mitigation sites, which up to this point have all been created on existing North Dakota game and Fish or United State Army Corps of Engineer managed wildlife management areas. Another project impacted typically requires mitigation are historic

bridges, for the national historic preservation act. Historic bridges that are removed or replaced are mitigated through different means such as documentation of site forms, including detailed reports with pictures on the history of the bridge, as well as constructing interpretive or informational sites which sometimes contains elements of that old bridge; or mitigation through the bridge adoption process.
Lastly, another form of mitigation for project impacts that was recently done was the construction of a moose crossing underpass on US-85 south of Williston. There are a few other future planned wildlife crossings along US-85 through the Badlands area near Little Missouri, that were a result of the environmental documentation process for the future planned highway projects in that area. All the above forms of mitigation done for project impacts were paid for with project funding dollars, were constructed and managed by the Department. To my knowledge, the Department has not elected to provide payments to third party, nongovernmental organizations for any assessed adverse environmental impacts.

Senator Cook: We heard testimony from Carmen Miller of Ducks Unlimited, as a third party mitigator, they can often save money. Have you found any truth to that?

Matt Gangness: In reference to wetland mitigation, we have ability to calculate the cost per credit, and we are aware of their cost per credits. Our numbers are lower, although I would have to verify that.

Senator Cook: But you do look at it and compare costs?

Matt Gangness: Yes, we have those costs available.

Chair Unruh: I know there are a lot of conversations happening about this bill, I hope to start digging into some of it soon.

Vice-Chair Kreun: Looking at the membership of the proposed board, it's awfully large and doesn't represent one county or city, or metropolitan area at all. If we make an amendment, I'm not sure it's a huge issue, but 15 members is cumbersome to get anything done, and I think we need to represent the whole state.

Chair Unruh: I made a note of that, I know there's a lot of conversations, a lot of people want to get added to the committee. It's a very large committee, with a different purpose right now than what is in the bill. My concern is on pages 2-3, all the details that authorize that committee to use that money and take action on things. There's a lot of work that needs to be done there.

Vice-Chair Kreun: The PSC has some concerns in this bill. I don't know if we know how that affects things, we had better ask.

Chair Unruh: We had Commissioner Fedorchek testify on the bill. I think in opposition. I have been working with the PSC lawyers to try and come up with language that they are comfortable with. My hope is that we can incorporate that into this bill.

Chair Unruh: Closed the meeting.

2019 SENATE STANDING COMMITTEE MINUTES

Energy and Natural Resources Committee
Fort Lincoln Room, State Capitol

HB 1383
3/21/2019
Job Number 34085

☐ Subcommittee
☐ Conference Committee

Committee Clerk: Marne Johnson

Explanation or reason for introduction of bill/resolution:

A bill relating to the creation of an environmental impact mitigation fund and to mitigating direct environmental impacts; relating to the federal environmental law impact review committee, exclusion and avoidance areas and the factors considered by the public service commission when evaluating and designating sites, corridors, and routes; to provide for a report to the budget section; to provide an appropriation; and to provide a continuing appropriation.

Minutes: 1 Attachment

Chair Unruh: I've been working on amendments to try to make more people happy. If the committee had any input or direction, I'd be happy to take it.

Senator Piepkorn: I have one piece I'm going to pass out, **(please see attachment #1)** to read at your own leisure. I do a radio history pieces on Dakota Datebook. This particular story is about Theodore Roosevelt and his establishment of national forests, federal bird reserves, game preserves and his dedication to paying attention to wildlife. A lot of this discussion on mitigation and direct and indirect impacts has a lot to do with that. Read that at your own leisure. I am going to read a brief outtake; they are currently doing a Roosevelt series as we commemorate the 100 anniversary of his death. Roosevelt said this at the time when pelicans and flamingoes and feathers from those birds were popular for women's hats, in the early 1900s. We're not using so many feathers for decoration now, nonetheless I believe the spirit of his words are important.
"Bird that are useless for table and not harmful to the farm, should always be preserved, and the more beautiful they are, the more carefully they should be preserved. They look a great deal better in the swamps and on the beaches and among the trees than they do on hats. And yet, with the great majority of our most interesting and important wild beasts and birds, the prime need is to protect them, not only by laws limiting the open season and the size of the individual bag, but especially by the creation of sanctuary and refuges. The progress made in the United States in recent years in creating and policing bird refuges has been of capital importance. Laws to protect small and harmless wildlife, especially birds are indispensable." Something to contemplate, the words of Theodore Roosevelt, who gets a lot of attention around here. Some of his views wouldn't be as popular as they were at one time, but something to think about.

Chair Unruh: Closed committee work.

2019 SENATE STANDING COMMITTEE MINUTES

Energy and Natural Resources Committee
Fort Lincoln Room, State Capitol

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3/29/2019
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☐ Subcommittee
☐ Conference Committee

Committee Clerk: Marne Johnson

Explanation or reason for introduction of bill/resolution:

A bill relating to the creation of an environmental impact mitigation fund and to mitigating direct environmental impacts; relating to the federal environmental law impact review committee, exclusion and avoidance areas and the factors considered by the public service commission when evaluating and designating sites, corridors, and routes; to provide for a report to the budget section; to provide an appropriation; and to provide a continuing appropriation.

Minutes: 1 attachment

Chair Unruh: Passed out amendments. **Please see attachment #1.** I've shared my thoughts with you previously, I've talked to quite a few folks in the audience as well. I'm torn on the bill, because I believe that if we move forward with legislation like this, what we do is set up a pathway for mitigation companies to move into North Dakota and make a lot of money that we're trying to redirect to landowners. I think inserting government in the middle of the process between landowners and industry does not help the situation in getting landowners the just compensation and mitigation they deserve. I think that generally language like this takes the state in the wrong direction, because we open the door to inserting more government and companies in between our landowners and our developers who are putting energy projects on the ground. That said, I know I don't have a lot of people with me on that concept. As an offer of compromise, I've taken this bill and done my best to try to narrow the scope of what the committee will be doing and looking at, to hopefully benefit the landowners who are effected by wind energy development. It stems back to the Game and Fish Department's insertion into one project that the Public Service Commission was siting. That is how we have found ourselves here with this bill. I've done my best to keep how we got here in mind, as we look at how we are going to move forward with policy. Consistent with what we discussed yesterday with OHF, I've made a broad category that those groups still fit in to serve on this mitigation board, the FELIRC. I've add a Public Service Commissioner, or their designee, they're the ones who are approving these projects and siting them, they hear from the landowners on what their issues are. The state engineer, they deal with water, it's only appropriate if we're dealing with wetland mitigation. Game and Fish or their designee they had raised concerns on this, it's fair that they are at the table. The DOT, they have their own mitigation process that they use, hopefully they can provide some insight. The

Department of Environmental Quality, they deal with mitigation issues. I left the investor owned and the cooperatives in. Two individuals from the agricultural production community, which is where we would see the Farm Bureau and Farmer's Union fitting. Two individuals from the conservation community, they should be a part of this discussion. Two individuals appointed by the governor from the wind energy development community, they should be at the table. The crop community, the animal agriculture community, and the energy community at large.

In section 2, generally, the funds come from the people who elect to put funds in. I've removed the $5 million appropriation. There was a lot of confusion about how it worked. The money that would be utilized by our landowners for mitigation should come from people who are paying those mitigation costs. That is my goal, if mitigation payments are being made, those are being used to funnel back to the landowner, not additional state funds. Subsection 1 talks about the distribution; I've narrowed the scope to only landowners for the mitigation of agricultural land impacted by wind energy development. The funds could also be used for contracting environmental scientists or engineers for relevant services to implement these identified mitigation needs. I've removed offsetting or defraying costs of landowner mitigation in qualifying circumstances as determined by the advisory board. I don't think this should be a function of the board, they shouldn't be making flat payments to landowners. This should result in some real on-the-ground conservation, mitigation, or additional grasslands, there should be something tangible. I left a lot of the remaining functions in place. On page 4, that subsection 9 was removed because of the way I changed the authorization of the funds in the appropriation.

Moving into the siting act, sub 2 says that the prime farmland is not an exclusion or an avoidance area, which was in the original bill, I didn't change that. We're leaving it out of the exclusion area, that can be decided by the Public Service Commission and the company.

Section 4 is still the siting act, on lines 11-14, I couldn't figure out what the purpose was, other than to shift the way that our siting act is interpreted by our PSC, so I restored the language as it exists, I don't see need for change. On page 6, at the end of section 4, I've taken language suggested by the PSC that addresses the heart of the issue that we talked about at the beginning of these amendments, stating that a condition cannot be put on the issuance of a permit resulting in a payment. I've provided that language in SB 2261 to hoghouse that bill.

Section 5 talks about the actual mitigation, this is part of where we start getting ourselves into trouble, this talks about that an applicant may elect to provide a payment for adverse direct environmental impacts, that can be done multiple ways, my intent is to allow it to continue as it is, or if the applicant elects, it could go into the fund we've created within the Ag Department, and then the Ag Commissioner would take those funds and utilize them as we have outlined. That's the first part of the siting act. The second part relating to oil and gas, the oil and gas industry asked to be removed from this bill, I agree with them. I removed everything relating to 49-22.1 out of the bill. The appropriation is removed, but the authorization to use funds in the continuing appropriation was left in the earlier part of the bill.

Senator Schaible: On page 1, line 14, the Commissioner, is that the Ag Commissioner? My question is on page 2, if the Ag Commissioner is the chairman, why are they appointed by the governor, wouldn't it make more sense to have the Ag Commissioner?

Chair Unruh: I agree. I don't know why the chairman wouldn't appoint them.

Senator Schaible: I would suggest that.

Chair Unruh: We can change that. We'll need to switch it to commissioner, if we change it on the directions, we should be okay.

Senator Schaible: Could you explain in section 5, page 6, 'the applicant may elect to provide payment,' so there's a payment being offered and the applicant may elect, so they also may elect to? What's the alternative? Most of this came from payments for indirect impacts going to organizations for things that we didn't like, how does that work with what this does in section 5?

Chair Unruh: As hard as I tried to try and prevent companies from making payments to groups we don't like, the best that I can do is the language right above that in section 4 and this language in section 5. We have told the Commission they can't require companies to give money to those groups, and we've given those groups a place for the money to go, if they so choose. What I don't think we can do, is tell companies that they can't elect to give a group like Ducks Unlimited $500,000. I don't think that's something we can legislate. I think after we've had all these discussions, companies understand that that is not something we want to see them do, but I don't think it's something we can legislate. We have given them options, and told the Commission that they can't.

Senator Roers: The one thing I don't see in here, is the words 'indirect impact cost', it's all adverse, direct environment. I think intentionally we've taken the words indirect out, so there isn't the potential for that kind of activity. Am I reading that right?

Senator Schaible: Page 5, line 22.

Chair Unruh: Two things. The mitigating piece in section 5 relates to direct mitigation, not indirect, but the Commission, as they have been since 1975, would still be able to consider indirect impacts when siting a project. I think they should retain that authority, my problem with indirect impacts is not their existence, they do exist. The problem is assigning a dollar amount to that. It's an art, not a science. I don't mind being able to consider that when looking at a project, it's just that dollars are problematic.

Senator Schaible: Section 5 does mitigate direct impacts.

Chair Unruh: Yes.
The one change we talked about earlier, is to make sure the Commissioner is the one who appoints these individuals to the committee.

Senator Schaible: Does this amendment include that the Ag Commissioner picks people out?

Chair Unruh: Yes, with the exception of the governor's designee.

Senator Schaible: With that addition, I move to adopt the .12002 amendment.
Senator Roers: I second.

Senator Roers: When we talked about putting the Ag Commissioner in before, I thought we were specifically talking about m, but as I just heard, you clarified that all the places where it says governor.

Chair Unruh: We would be changing from the amendments that I have listed, with the change of page 2, line 6, for subsections m, n, o, p, q, and r changing the word governor to commissioner.

Senator Roers: I just ran into Ag Commissioner, I misinformed him. He'll be happy to hear that change.

Chair Unruh: I didn't focus on that like I should have.

A voice vote was taken.
Motion carries.

Senator Schaible: I move a Do Pass as amended.
Senator Cook: I second.

Chair Unruh: I stand by my statement earlier of this being not a good policy pathway for the state. I think it hurts our landowners in the long run, I will support the concept to move it forward at this point, I think it's a worthy discussion, if this is the way we want to go.

Senator Cook: Where is the other bill, do you know?

Chair Unruh: The House Ag committee has that bill, I do not know if they've taken action on it. I see heads shaking in the audience no.

Senator Cook: What is the difference between the two now?

Chair Unruh: They haven't taken any action, it remains in the form we sent over, which said that the Commission can't require payments for indirect and direct mitigation. I gave the committee chairman some amendments to consider, which are included in this bill, on page 5, lines 19-23, it's the suggested language from the PSC to exclude oil and gas, and include the conditioning issue of permit in exchange for payment, to make sure that cannot happen. That language is in here as well.

A roll call vote was taken.
Motion passes 6-0-0.

Chair Unruh will carry.
Closed the meeting.

SK 1003 3/21

19.0188.12003
Title.13000

Adopted by the Senate Energy and Natural Resources Committee
March 29, 2019

PROPOSED AMENDMENTS TO REENGROSSED HOUSE BILL NO. 1383

Page 1, line 1, replace the comma with "and"

Page 1, line 2, remove ", and a new section to chapter 49-22.1"

Page 1, line 4, replace the first comma with "and"

Page 1, line 4, replace the second comma with "and"

Page 1, line 5, remove ", 49-22.1-03, and 49-22.1-09"

Page 1, line 8, remove "to the budget section; to provide an appropriation"

Page 1, line 20, overstrike "One individual appointed by the lignite energy council;"

Page 1, overstrike lines 21 through 23

Page 1, line 24, overstrike "j. One individual appointed by the North Dakota soybean growers association;"

Page 2, line 1, overstrike "k. One individual appointed by the North Dakota stockmen's association

Page 2, line 1, remove the underscored semicolon

Page 2, remove lines 2 and 3

Page 2, line 4, replace "n." with "The chairman of the public service commission or the chairman's designee;

g. The state engineer or the state engineer's designee;

h. The director of the game and fish department, or the director's designee;

i. The director of the department of transportation, or the director's designee;

j. The director of the department of environmental quality, or the director's designee;

k."

Page 2, line 4, remove "and"

Page 2, line 5, replace "o." with "l."

Page 2, line 6, after "cooperatives" insert: ";

m. Two individuals from the agricultural production community appointed by the commissioner;

n. Two individuals from the conservation community appointed by the commissioner;

o. Two individuals from the wind energy development community appointed by the commissioner;

p. Two individuals from the crop community appointed by the commissioner;

q. Two individuals from the animal agriculture community appointed by the commissioner; and

r. Two individuals from the energy community appointed by the commissioner"

Page 2, line 9, replace "**budget section**" with "**legislative management**"

Page 2, line 11, remove "The moneys accumulated in the environmental impact mitigation fund must be"

Page 2, line 12, replace "allocated as provided by law and as appropriated by the legislative assembly" with "There is created in the state treasury the environmental impact mitigation fund. The fund consists of all moneys deposited in the fund under section 5 of this Act. All moneys in the fund are appropriated to the commissioner on a continuing basis"

Page 2, line 13, remove the underscored colon

Page 2, remove lines 14 and 15

Page 2, line 16, replace "b. To" with "to"

Page 2, line 16, after "by" insert "wind"

Page 2, line 17, remove "; and"

Page 2, remove line 18

Page 2, line 19, replace "wetlands" with "as set forth under subsection 2"

Page 2, line 21, remove ", wildlife biologists,"

Page 2, replace lines 22 through 26 with "or engineers for relevant services to implement mitigation required from the impact of wind energy development; and"

Page 2, line 27, remove ", restoration,"

Page 2, line 27, remove "land, water resources, or wildlife"

Page 2, line 28 replace "habitats adversely impacted directly by" with "adverse impacts from wind"

Page 2, line 28, remove "; and"

Page 2, remove line 29

Page 2, line 30, remove "as determined by the advisory board"

Page 3, line 1, remove "The commissioner is not subject to chapter 54-44.4 when contracting for services"

Page 3, remove line 2

Page 3, line 3, remove "4."

Page 3, line 5, replace "5." with "4."

Page 3, line 7, replace "6." with "5."

Page 3, line 8, remove "at least one regular meeting each year and additional"

Page 3, line 10, replace "presiding officer" with "chairman"

Page 3, line 12, replace "7." with "6."

Page 3, line 15, replace "8." with "7."

Page 3, line 16, remove "budget section of the"

Page 3, remove lines 17 and 18

Page 4, after line 21 insert:

"1."

Page 4, remove the overstrike over lines 22 and 23

Page 4, line 24, remove "1. To"

Page 4, line 24, remove "in"

Page 4, line 24, remove ", the commission"

Page 4, line 25, remove "shall consider"

Page 5, line 3, remove the overstrike over "~~and indirect~~"

Page 5, line 18, remove "In the evaluation and designation of sites, corridors, and routes, the commission may"

Page 5, replace lines 19 through 23 with "The commission may not condition the issuance of a certificate or permit on the applicant providing a mitigation payment assessed or requested by another state agency or entity to offset a negative impact on wildlife habitat."

Page 5, line 27, replace "If an applicant elects to provide" with "An applicant may elect to provide"

Page 5, line 28, replace "impact" with "impacts"

Page 5, line 28, remove ", the applicant shall"

Page 5, line 29, remove "make the payment to the agriculture commissioner"

Page 5, line 29, after the underscored period insert "The applicant may elect to provide the payment to the agriculture commissioner."

Page 6, line 1, replace "Subject to subsection 3, the" with "The"

Page 6, remove lines 4 through 31

Page 7, remove lines 1 through 30

Page 8, remove lines 1 through 15

Renumber accordingly

Date: 3/29
Roll Call Vote #: 1

2019 SENATE STANDING COMMITTEE
ROLL CALL VOTES
BILL/RESOLUTION NO. 1383

Senate Energy and Natural Resources Committee

☐ Subcommittee

Amendment LC# or Description: .12002 with 'commissioner' replacing 'governor' sect. 1 sub m, n, o, p, q, and r.

Recommendation: ☑ Adopt Amendment
☐ Do Pass ☐ Do Not Pass ☐ Without Committee Recommendation
☐ As Amended ☐ Rerefer to Appropriations
☐ Place on Consent Calendar

Other Actions: ☐ Reconsider ☐ _____

Motion Made By Sen. Schaible Seconded By Sen. Roers

Senators	Yes	No	Senators	Yes	No
Senator Jessica Unruh			Senator Merrill Piepkorn		
Senator Curt Kreun					
Senator Donald Schaible					
Senator Dwight Cook					
Senator Jim Roers					

Total (Yes) _____ No _____

Absent _____

Floor Assignment _____

If the vote is on an amendment, briefly indicate intent:

Voice Vote
Motion Carries

Date: 3/29
Roll Call Vote #: 2

2019 SENATE STANDING COMMITTEE
ROLL CALL VOTES
BILL/RESOLUTION NO. 1383

Senate Energy and Natural Resources Committee

☐ Subcommittee

Amendment LC# or Description: .12002 with 'commissioner' replacing 'governor' sect 1, sub m, n, o, p, q and r.

Recommendation: ☐ Adopt Amendment
☒ Do Pass ☐ Do Not Pass ☐ Without Committee Recommendation
☑ As Amended ☐ Rerefer to Appropriations
☐ Place on Consent Calendar

Other Actions: ☐ Reconsider ☐ _____

Motion Made By Sen. Schaible Seconded By Sen. Cook

Senators	Yes	No	Senators	Yes	No
Senator Jessica Unruh	X		Senator Merrill Piepkorn	X	
Senator Curt Kreun	X				
Senator Donald Schaible	X				
Senator Dwight Cook	X				
Senator Jim Roers	X				

Total (Yes) 6 No 0

Absent 0

Floor Assignment Sen. Unruh

If the vote is on an amendment, briefly indicate intent:

REPORT OF STANDING COMMITTEE

HB 1383, as reengrossed: Energy and Natural Resources Committee (Sen. Unruh, Chairman) recommends **AMENDMENTS AS FOLLOWS** and when so amended, recommends **DO PASS** (6 YEAS, 0 NAYS, 0 ABSENT AND NOT VOTING). Reengrossed HB 1383 was placed on the Sixth order on the calendar.

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Renumber accordingly

2019 CONFERENCE COMMITTEE

HB 1383

2019 HOUSE STANDING COMMITTEE MINUTES

Agriculture Committee
Coteau A Room, State Capitol

HB 1383
4/11/2019
34676

☐ Subcommittee
☒ Conference Committee

Committee Clerk, Kathleen Davis for ReMae Kuehn

Explanation or reason for introduction of bill/resolution:

Relating to the creation of an environmental impact mitigation fund and advisory board and to mitigating direct environmental impacts; relating to exclusion and avoidance areas and the factors considered by the PSC when evaluating and designating sites, corridors, and routes; to provide for a report to the budget section; and to provide an appropriation

Minutes: Attachment 1, 2

Chairman Schreiber-Beck opened the conference committee hearing on SB1383. If you could provide some reasons on your amendments.

Sen Schaible: went thru the Christmas tree version of the bill.

- Sec 2 authorizes to spend the money.
- Page 3 narrows the spending down to landowners only.
- Overstrike language on Page 3 Subsection 2. If you look at Line 10 and say environmental scientist, we think this covers all other agencies, we think that's redundant, you don't need to list them.
- Language on B, allows for spending on reclamation and mitigation
- Overstrike on Section C Line 20, this deletes that saying no direct payments to landowners. We don't want it to look like a bribe.
- Page 4, sub 9, removed because the direct appropriation was removed and not necessary
- Page 5 Lines 13-14, restored original language
- Line 24d, we put back in direct impacts. We agree indirect is a difficult subject. We think the PSC does need to consider indirect impacts when doing a siting. It's hard to do a siting if they can't consider indirect impacts.
- Page 6 15-17 is duplicate language of SB 2261; a PSC amendment that needed to be similar
- Sec 5, Line 21 this is how money gets into the fund and permission to do that
- Overstrike on Lines 28-30 keeps money from going to certain organizations
- Sec 6 is taking oil and gas siting's out of this act. That's all in 49-22.1
- Sec 9 removes appropriation, it's now in Sec 2 and want to protect that dollar that's for the Federal Environmental Law Impact and Review Committee so they can still function.

Chairman Schreiber-Beck: I note you have made this basically a wind energy bill versus any other siting that takes place for any other energy facility or transmission.

Sen Schaible: correct.

Rep. Brandenburg: presented a marked up version by Sen. Wanzek, Attachment 1, amendment 12006. Sen. Wanzek had an amendment, his notes along the side, what we agreed with and didn't. The corn growers, grain growers, soybean growers and Farm Bureau and Farmers Union has been restored. The language is the same or very comparable to the senate bill that was passed.

- One important section, the wind adverse impacts and developments is in there.
- Page 3 Line 28, same language, biennial report to Legislative management. Exclusion and avoidance areas, same thing with prime farmland, irrigated land.
- Section 4 talks about considerations.
- Line 16 Sec 4 Page 5 where it added in direct and indirect.
- Page 6 same language as in the Senate bill but 2 things we need to talk about.
    1. Line 14 and 18, adverse direct environmental impacts. Since we're talking direct and indirect, that needs to be lined out. Corresponds with what we did in the beginning of the bill.
- The oil portion is taken out too. In discussion with the Sen Wanzek, the oil people don't want to be a part of this.

Sen Schaible: page 6, your suggestion on 14 and 18 strike out direct?

Rep. Brandenburg: yes, so it reads, any adverse environment impacts. I think page 4-5 where we're talking about direct and indirect. So they correspond.

Sen Schaible: On Page 5, that's the consideration of the PSC to consider direct and indirect impact. But on Page 6 with 14 and 18, this section is about payments. I thought we only wanted payments for direct impacts so by striking that opens it up to a wider range than what we're looking for.

Rep. Brandenburg: I agree, but I wanted to bring it up. If there's any payments for indirect impacts, is that limiting us that we can't receive those indirect impacts? I don't want them.

Sen Schaible: I agree, but in Sec 5, it says, an application may elect to provide payments to mitigation and goes on, for direct impacts. Page 6 with 14 and 18, the section is about payments. I thought the conversation we were looking at, we only want payments for direct impacts. By striking that it opens it up to a wider range than what we're looking for and question that.

Rep. Brandenburg: I agree. I bring it up for discussion. We're going to have some more conversations. I'm hearing 2 different concepts. If there is any payment paid for indirect impacts, is that limiting us that we can't receive those indirect impacts? I don't want them.

Sen Schaible: I agree, but in Sec 5, it says, an application may elect to provide payments to mitigation and goes on, for direct impacts. I think that's exactly what we want.

Rep Brandenburg: I don't want them to pay for any indirect impacts.

Sen Schaible: I'm not disagreeing with that. I think that's what this says as is.

Rep. Brandenburg: That's why I want to get it on the record so we can clarify, talk about it if we need. One more thing, passed out Attachment 2, proposed amendment 12008.

Back page, Sec 6: project comment letter that the PSC requests a project comment letter, a voluntary letter. It's not set in place by law. It's a voluntary letter by G&F saying that the project

meets the standards. I have been involved in many PSC hearings on wind energy sitings in Dickey, LaMoure, McIntosh, Emmons and Logan Counties, as well as others. For years they'd have the hearing. For example, a hearing was in August, came in with criteria and went through it and what they needed to do, dealt with it no problem. In Dickey County, in November, out came this comment letter from G&F. I had to listen from Commissioner Fedorchek line by line for an hour, about this project being in this area because where it was being sited. I saw some of my neighbors and friends losing their opportunity to have wind towers because of eagle nests and unbroken prairie or as I call it, pasture. I saw people in tears. The letter came out at 4:59 the day before the hearing in Dickey County. No time to react or have a comment back. The letter put a lot of confusion and trouble for the project.

In Emmons, Logan there were 44 wind towers moved. I saw neighbors who knew they were getting wind towers and they lost them. Again at 4:59 the day before the letter comes from the G&F saying they cannot give approval of this project. They even adjusted roads. This project comment letter needs to be handled differently. It can't show up at 4:59 the day before when you don't have time to respond to it.

Sen Schaible: project comment letter, that's a new concept to me. Can you explain that?

20:00

Rep Brandonberg: there's no section of law that says they can do this, it's called voluntary. They're doing it through the rule making effect. It's supposed to be that you have no substance to it but I can tell you after listening to Commissioner Fedorchek for an hour, that you will comply with the letter from G&F or you will not get my support. It's on record. So this project comment letter about the project from G&F is being used as a hammer to push their agenda. I think they should stand at the podium just like we do and have to present their case. If they have a concern or something valid, I think the people when they have the public service commission hearing, they should have to present their case so everyone knows what they're doing rather than sending the letter and the damage is already done. That's what this Section 6 would do. Oil people are out, don't want to be involved in this. I hope someday they realize they should be a part of this because they're getting affected too.

Sen Schaible: before we move I'd like some time to research.

Chairman Schreiber-Beck: yes, we'd all like to review them.

22:20

Sen Schaible: couple concerns first. The original commission was set up for a specific purpose with money designated to this for that purpose. Now we're adding, not only changing the membership, but now adding another purpose to this commission. I'm not against that. I want to make sure the original intent of the commission stays intact and the money initiated for that original purpose says intact and separate. Now we have 2 focuses for this commission. It looks like we're creating another funding mechanism for part of this. My concern is that the original intent of what this commission was made for and the money for that would stay intact for that purpose, so they're not comingled.

Rep. Brandenburg: PSC being on there, the state engineer, G&F, Dept of Transportation, DEQ all on there. I realize not everybody is happy with that.

Sen Piepkorn: the project letter, PSC requests from the G&F. Tell them about the process. When are they asked for their opportunity to send the letter, which is not mandatory, who does the letter come to, when's the public meeting?

Rep Brandenburg: example down in Dickey County. Xcel project, they went through a couple years of work with G&F. They had up to a year of time, looking at the best place to put turbines. The developer moved here and there to meet their requests. In the process, the landowners were left out of that process. The developer would put stakes in the ground and the landowner would go around and see where they were at. Then there was mitigation and they were moved. After a year, not with just G&F, also F&W, they thought they had met all the criteria and placed in the right spot, not interfere with the environment. Then a letter shows up at 4:59 that they have not complied with ND F&G. Same thing in Emmons/Logan happened there. They were waiting, thought they had things taken care of, 44 wind towers moved off the pasture, fixed up 10 miles of roads, and after all that work G&F gave another letter of not being in compliance. G&F said they had impacts to the roads they moved and wanted $250,000 for road improvements that impact wetlands. 4:59 the night before the PSC, Xcel, Great River Energy gets a letter they're not in compliance and haven't met the standards. I don't think you can ever make them happy. I have no problem with G&F and USF&W taking control of land they have easements. But people like myself, who own the abstracts, they're making decisions for people who own those abstracts, this letter of comment, the landowners should be part of that decision. Other projects in the state are having the same problems. I know wind energy is the low hanging fruit. It's easy to go after. This is coming to coal, coming to oil. Everyone can live with impacts but when indirect impacts happen- down at Foxtail, there was $550,000 sent to Ducks Unlimited, direct payment on direct impacts. They wanted $2.5 million for indirect impacts. The governor stepped in and said you're not going to do that G&F. The governor stepped in, that's why it didn't happen.

Sen Piepkorn: G&F sends their letter to the PSC and they send it to the companies involved. And that's the letters being sent at 4:59 the day before the public meeting. That's when they get the letter from the PSC.

Rep Boe: I could talk ½ hour but I'll save it.

Chairman Schreiber-Beck: closed the hearing.

2019 HOUSE STANDING COMMITTEE MINUTES

Agriculture Committee
Coteau A Room, State Capitol

HB 1383
4/15/2019
34731

☐ Subcommittee
☒ Conference Committee

Committee Clerk, Kathleen Davis for ReMae Kuehn

Explanation or reason for introduction of bill/resolution:

Relating to the creation of an environmental impact mitigation fund and advisory board and to mitigating direct environmental impacts; relating to exclusion and avoidance areas and the factors considered by the PSC when evaluating and designating sites, corridors, and routes; to provide for a report to the budget section; and to provide an appropriation

Minutes: Attachment 1, 2

Chairman Schreiber-Beck opened the conference committee hearing on SB1383

Rep. Brandenburg: presented amendment 12013 (Attachment 1).

Sen Schaible: Sec 6 is like a state agency, like G&F would have to propose their view 30 days before? Would that include all state agencies and other entities?

Rep. Brandenburg: It probably would. The agencies that present their information in a timely manner. It's pretty standard that you should have your information in 30 days prior to a deadline so there's time to review and react. It's about having openness for agencies and landowners.

Rep Boe: In the case of the siting of a wind farm in Northern Rolette County; when deciding mapping locations, the USF&W had negotiated with the engineers they would not challenge them on siting as long they had a ¾ mile setback from any of their easement acres. My father in law was in line to get 8 towers but ended up with 3 because of his neighbors' easements. It had nothing to do with his acreage. That amounts to a taking. If you're negotiating saying that you want a ¾ mile setback away from an easement acreage, and there was another easement signed by the adjacent landowner. I think that's a problem.

Sen Peipkorn: So the US F&W negotiated with the wind company on the sitings. The easements you're talking about were not your father-in-laws but easement the neighbors had signed with US F&W. In that case it seems to me the responsibility goes to the wind company for not thoroughly examining the language in these easements. It's oversight on their part.

Rep Boe: I don't think it's a question if they thoroughly examined them. If the knowledge that the easiest route is if you negotiate beforehand and say you won't be challenged on anything as long as you stay ¾ mile away from these acres.

Sen Peipkorn: I'm just stating my interpretation. It didn't say from your explanation that any of your personal easement acres, it says any easement acres, it seems like to me. That appears to be not good research on somebody's part.

Rep Boe: It's not about their research. It's about the agency coming in and telling them the easiest route is if you don't place. They fully researched. They found the acres and complied. I don't think that should be a compliance issue. I think the easement acres should be the easement acres and that's it. If you don't have the easement acres on the other side of the road, that shouldn't be part of the equation.

Sen Peipkorn: I believe that's an issue not addressed in this bill.

Sen Schaible: I have a question, same as last week. This Federal Environment Law Impact Review Committee, was set up prior to this, had a specific purpose. There was money for that and I think there's money left in that account. Now that we're adding duplicate duties to this and other monies, can you explain the separation, or differences? The original intent of this committee and now the new intent, and we have 2 sets of money. My concern is the original intent is still there and the money sent for that reason would still be there for that. Are they going to get thrown into one?

Rep. Brandenburg: The original $4 million put into that fund was used for waters of USA and studies done for dealing with endangered species, NDSU and other colleges are doing studies of that type. That money is pretty well gone and been committed. There's a little bit left that will be used up in research with private companies and organizations put money in to match those dollars. All the litigation money in this session has been swept from all agencies, the Lignite Research Fund, Industrial Commission, and put into OMB. There's a pocket of money, $3.5-$4 million you have to go get. So there's no money left in the agencies, including the ag commissioner, as well as tax department. That money is in OMB, there's not a pocket of money there to be carried forward or used.

Sen Schaible: the original intent of the committee, is that still combined or separate?

Rep. Brandenburg: I'm going to have to check that out. I still think Waters of the USA is an ongoing project. As you notice we left room for 2 energy people because if something happens to Water of USA. I don't want to lose that authority to work on that.

Sen Schaible: that was the intent of the Senate to make sure the original intent was left intact.

Sen Peipkorn: last week stated there were several claims, I believe it was G&F was submitting their letter at 4:59, (referring to Attachment 2 handed out prior to the meeting) 1 minute before the required deadline and that it was a big problem. I'm looking at several letters here from G&F to wind companies. They have to depend on information they receive from wind companies in order to make certain judgements and opinions and apparently have been dragging their heels so G&F can't make a statement until they get information from the wind companies. If you're asking G&F, a state agency with jurisdiction, to have this report in 30 days before, or it's null and void, then there should be a stipulation that the report from the wind companies get to them in a timely fashion. If they're not getting information in time, how can they complete their report?

Rep. Brandenburg: You can submit all you want to G&F. When you're dealing with an agency who has made the comment, "we have determined unbroken prairie to be one of the highest value resources in our state." That's ok if you have an easement on that land and you're in control of it but if it's a private landowner, you're saying that you can't put. They think the abstracts belong to the ducks and critters in the grass, whereas these abstracts belong to the people. Subsequently they don't necessarily believe with them. Down in Linton, I got a phone call from Al Christianson from

Great River Energy (and he said I could use this example) saying what is going on that I got a letter from G&F at the end of the day, 4:59, saying NextEra has not complied with G&F requirements. They have been working on it for over a year to try to comply. You can't comply with them. Their requirements are a land taking. They are taking away private land. They don't necessarily agree with that. How can you meet their standards when the standards are set so high, then an eagles nest is more important than the people that own the land or the private land owners' pasture is more important than the people that own it. They're putting the ducks, pheasants and critters in the grass ahead of the people who own the land and that's a taking in my opinion. That's what G&F is requiring and I think it's work and the landowner thinks it's wrong. How can you comply with someone you can't comply with? This conversation was going on for 6-12 months.

Rep Boe: Good point Sen Peipkorn. Maybe we should have a complete timeline for who does what when.

Rep. Brandenburg: I would like to check to make sure we're not hurting the Waters of the USA. Never thought of that, thank you Sen. Schaible for bring that up.

Chairman Schreiber-Beck: adjourned the meeting.

2019 HOUSE STANDING COMMITTEE MINUTES

Agriculture Committee
Coteau A Room, State Capitol

HB 1383
4/17/2019
34792
☐ Subcommittee
☒ Conference Committee

Committee Clerk, Kathleen Davis for ReMae Kuehn

Explanation or reason for introduction of bill/resolution:

Relating to the creation of an environmental impact mitigation fund and advisory board and to mitigating direct environmental impacts; relating to exclusion and avoidance areas and the factors considered by the PSC when evaluating and designating sites, corridors, and routes; to provide for a report to the budget section; and to provide an appropriation

Minutes: Attachment 1

Chairman Schreiber-Beck opened the conference committee hearing on SB1383.

Rep. Brandenburg: that pot of money is there and the Waters of the USA Committee, the original committee is still active with this. Now we deal with 2 pots of money. (1) Litigation fund, the ag commissioner confers with the attorney general and (2) mitigation, the ag commissioner is dealing with mitigation money. He reviews amendment 12015 (Attachment 1). Top of page 4, for the purposes of this section the Environmental Impact Mitigation fund is not subject to Subsection 2 of Sec 4.1-01-18. It puts the ag commissioner in charge of the mitigation money and leaves the litigation money where the ag commissioner confers with the attorney general.

Chairman Schreiber-Beck: does that answer the question of the committee makeup, the original intent of the committee?

Sen Schaible: it was the division of the duties and I think that has been addressed.

Chairman Schreiber-Beck: when we last met we discussed the 30 days which was placed on version 13 we spoke about.

Rep Boe: I did some checking and did some visiting on the 30 days. The hammer for the other agencies and entities getting their info in, is that if they fail to give the information in a timely fashion, they're not going to get a report that's very favorable. It was indicated to me that it would behoove them to get it in, in a timely fashion.

Chairman Schreiber-Beck: So before us we have the updated amendment, which includes the 30 day, corrects having to confer with the attorney general.

Sen Schaible: I move the Senate recede from Senate amendments and amend as follows.

Sen Kreun: second.

Chairman Schreiber-Beck: further discussion?

Sen Piepkorn, I had a question proposed to me about the necessity to describe somewhere in the bill to define the difference between direct and indirect impacts.

Rep. Brandenburg: We do agree with direct impacts. Everybody understands a direct impact. No sound science that gives you that information.

Sen. Piepkorn: how does that affect the PSC when theu're considering, to be guided by considerations including, adverse direct and indirect environmental effects. How does this affect their decision making?

Rep. Brandenburg: We're setting policy for the PSC to follow. We need to make a decision for them to follow.

Sen Schaible: When we added indirect back into it. This is the consideration of what we're looking at for a siting act. I think we came to the conclusion that we needed to consider direct and indirect. Indirect is very subjective of how we do things and based on opinion of where your views are and what you're in favor of and what you're not. I do agree indirect impact needs to be considered and we have good people at the PSC to use good judgement in making those decisions. I don't know if we need to define direct and indirect.

Chairman Schreiber-Beck: The 49-22-09 is original language, it's already in code, it's not new. It's been slightly altered, but direct and indirect impacts occurred in code prior.

Sen Piepkorn: something must have worked right in the past. We have millions of dollars of development that have gone forward. Something has been working.

Chairman Schreiber-Beck: and apparently something isn't working anymore so we have the language before us. Further discussion?
Roll call vote: 5 yes, 1 no, 0 absent. Carriers are Chairman Schreiber-Beck and Sen. Schaible.

Hearing closed.

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1 of 3

19.0188.12015
Title.14000

Prepared by the Legislative Council staff for
Representative Brandenburg
April 16, 2019

PROPOSED AMENDMENTS TO REENGROSSED HOUSE BILL NO. 1383

That the Senate recede from its amendments as printed on pages 1456-1458 of the House Journal and pages 1192-1194 of the Senate Journal and that Reengrossed House Bill No. 1383 be amended as follows:

Page 1, line 1, replace the comma with "and"

Page 1, line 2, remove ", and a new section to chapter 49-22.1"

Page 1, line 4, replace the second comma with "and"

Page 1, line 5, replace "49-22.1-03, and 49-22.1-09" with "and subsection 4 of section 49-22-16"

Page 1, line 6, replace the second "and" with a comma

Page 1, line 8, after "routes" insert ", and state agency rules"

Page 1, line 8, replace "budget section" with "legislative management"

Page 1, line 20, overstrike "One individual appointed by the lignite energy council;"

Page 1, line 21, overstrike "g."

Page 1, line 22, overstrike "h." and insert immediately thereafter "g."

Page 1, overstrike line 23

Page 1, line 24, overstrike "j." and insert immediately thereafter "h."

Page 2, line 1, overstrike "k." and insert immediately thereafter "i."

Page 2, line 2, replace "l." with "j."

Page 2, line 3, replace "m." with "k."

Page 2, line 4, replace "n." with:

"l. The chairman of the public service commission or the chairman's designee;

m. The state engineer or the state engineer's designee;

n. The director of the game and fish department, or the director's designee;

o. The director of the department of transportation, or the director's designee;

p. The director of the department of environmental quality, or the director's designee;

q."

Page 2, line 4, remove "and"

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2nd J

Page 2, line 6, replace "o." with "r."

Page 2, line 6, after "cooperatives" insert: "; and

s. Two individuals from the energy community appointed by the commissioner"

Page 2, line 9, replace "**budget section**" with "**legislative management**"

Page 2, line 11, remove "The moneys accumulated in the environmental impact mitigation fund must be"

Page 2, line 12, replace "allocated as provided by law and as appropriated by the legislative assembly" with "There is created in the state treasury the environmental impact mitigation fund. The fund consists of all moneys deposited in the fund under section 5 of this Act. All moneys in the fund are appropriated to the commissioner on a continuing basis"

Page 2, line 13, remove the underscored colon

Page 2, remove lines 14 and 15

Page 2, line 16, replace "b. To" with "to"

Page 2, line 16, remove "energy"

Page 2, line 17, remove "; and"

Page 2, remove line 18

Page 2, line 19, replace "wetlands" with "as set forth under subsection 2"

Page 2, line 21, remove ", wildlife biologists,"

Page 2, replace lines 22 through 26 with "or engineers for relevant services to implement mitigation required from the impact of development; and"

Page 2, line 27, remove ", restoration,"

Page 2, line 27, remove "land, water resources, or wildlife"

Page 2, line 28, replace "habitats adversely impacted directly by energy" with "adverse impacts from"

Page 2, line 28, remove "; and"

Page 2, remove line 29

Page 2, line 30, remove "as determined by the advisory board"

Page 3, line 8, remove "at least one regular meeting each year and additional"

Page 3, line 16, remove "budget section of the"

Page 3, line 17, remove "All moneys in the environmental impact mitigation fund are appropriated to the"

Page 3, line 18, replace "commissioner on a continuing basis for the purposes set forth under subsection 2" with "For purposes of this section, the environmental impact mitigation fund is not subject to subsection 2 of section 4.1-01-18"

Page 4, after line 21, insert:

DO 4/17/19
3 of 3

"1."

Page 4, remove the overstrike over lines 22 and 23

Page 4, line 24, remove "1. To"

Page 4, line 24, remove "in"

Page 4, line 24, remove ", the commission"

Page 4, line 25, remove "shall consider"

Page 5, line 3, remove the overstrike over "~~and indirect~~"

Page 5, line 18, remove "In the evaluation and designation of sites, corridors, and routes, the commission may"

Page 5, replace lines 19 through 23 with "The commission may not condition the issuance of a certificate or permit on the applicant providing a mitigation payment assessed or requested by another state agency or entity to offset a negative impact on wildlife habitat."

Page 5, line 27, replace "If an applicant elects to provide" with "An applicant may elect to provide"

Page 5, line 28, replace "impact" with "impacts"

Page 5, line 28, remove ", the applicant shall"

Page 5, line 29 remove "make the payment to the agriculture commissioner"

Page 5, line 29, after the underscored period insert "The applicant may elect to provide the payment to the agriculture commissioner."

Page 6, line 1, replace "Subject to subsection 3, the" with "The"

Page 6, remove lines 4 through 31

Page 7, remove lines 1 through 30

Page 8, replace lines 1 through 10 with:

"**SECTION 6. AMENDMENT.** Subsection 4 of section 49-22-16 of the North Dakota Century Code is amended and reenacted as follows:

4. ~~No~~A site or route ~~shall~~may not be designated which violates the rules of any state agency. A state agency with jurisdiction over any aspect of a proposed facility shall present the position of the agency at least thirty days before the public hearing on an application for a certificate, a permit, or a waiver, which position ~~shall~~ clearly must state whether the site, corridor, or route being considered for designation will be in compliance with ~~such~~the agency's rules. For purposes of this chapter it ~~shall be~~is presumed ~~that~~ a proposed facility will be in compliance with a state agency's rules if ~~such~~the agency fails to present its position on the proposed site, corridor, or route at least thirty days before the appropriate public hearing."

Renumber accordingly

Date: 4-11-19
Roll Call Vote #: _____

2019 HOUSE CONFERENCE COMMITTEE
ROLL CALL VOTES

BILL/RESOLUTION NO. HB 1383 as (re) engrossed

Ag Committee
Action Taken

☐ **HOUSE accede to Senate Amendments**
☐ **HOUSE accede to Senate Amendments and further amend**
☐ **SENATE recede from Senate amendments**
☐ **SENATE recede from Senate amendments and amend as follows**

☐ **Unable to agree**, recommends that the committee be discharged and a new committee be appointed

Motion Made by: _____ Seconded by: _____

Representatives	4/11			Yes	No	Senators	4/11			Yes	No
Chairman Schreiber-Beck	✓					Sen. Schaible	✓				
Rep. Brandenburg	✓					Sen. Kreun	✓				
Rep. Boe	✓					Sen. Piepkorn	✓				
Total Rep. Vote						Total Senate Vote					

Vote Count Yes: _____ No: _____ Absent: _____

House Carrier _____ Senate Carrier _____

LC Number _____ . _____ of amendment

LC Title Number _____ . _____ of engrossment

Emergency clause added or deleted

Statement of purpose of amendment

Date: 4-15-19
Roll Call Vote #: _____

2019 HOUSE CONFERENCE COMMITTEE
ROLL CALL VOTES

BILL/RESOLUTION NO. HB 1383 as (re) engrossed

Ag Committee
Action Taken

☐ **HOUSE accede to Senate Amendments**
☐ **HOUSE accede to Senate Amendments and further amend**
☐ **SENATE recede from Senate amendments**
☐ **SENATE recede from Senate amendments and amend as follows**

☐ **Unable to agree**, recommends that the committee be discharged and a new committee be appointed

Motion Made by: _____ Seconded by: _____

Representatives	4/15			Yes	No		Senators	4/15			Yes	No
Chairman Schreiber-Beck	✓						Sen. Schaible	✓				
Rep. Brandenburg	✓						Sen. Kreun	✓				
Rep. Boe	✓						Sen. Piepkorn	✓				
Total Rep. Vote							Total Senate Vote					

Vote Count Yes: _____ No: _____ Absent: _____

House Carrier _____ Senate Carrier _____

LC Number _____ . _____ of amendment

LC Title Number _____ . _____ of engrossment

Emergency clause added or deleted

Statement of purpose of amendment

Date: 4-17-19
Roll Call Vote #: 1

2019 HOUSE CONFERENCE COMMITTEE
ROLL CALL VOTES

BILL/RESOLUTION NO. HB 1383 as (re) engrossed

Ag Committee
Action Taken

- ☐ **HOUSE accede to Senate Amendments**
- ☐ **HOUSE accede to Senate Amendments and further amend**
- ☐ **SENATE recede from Senate amendments**
- ☒ **SENATE recede from Senate amendments and amend as follows**

☐ **Unable to agree**, recommends that the committee be discharged and a new committee be appointed

Motion Made by: Sen Schaible Seconded by: Sen. Kreun

Representatives	4/17			Yes	No	Senators	4/17			Yes	No
Chairman Schreiber-Beck	✓			✓		Sen. Schaible	✓			✓	
Rep. Brandenburg	✓			✓		Sen. Kreun	✓			✓	
Rep. Boe	✓			✓		Sen. Piepkorn	✓				✓
Total Rep. Vote						Total Senate Vote					

Vote Count Yes: 5 No: 1 Absent: 0

House Carrier Rep Schreiber-Beck Senate Carrier Sen. Schaible

LC Number 19.0188 . 12015 of amendment

LC Title Number _____ . 14000 of engrossment

Emergency clause added or deleted

Statement of purpose of amendment

Insert LC: 19.0188.12015
House Carrier: Schreiber-Beck
Senate Carrier: Schaible

REPORT OF CONFERENCE COMMITTEE

HB 1383, as reengrossed: Your conference committee (Sens. Schaible, Kreun, Piepkorn and Reps. Schreiber-Beck, Brandenburg, Boe) recommends that the **SENATE RECEDE** from the Senate amendments as printed on HJ pages 1456-1458, adopt amendments as follows, and place HB 1383 on the Seventh order:

That the Senate recede from its amendments as printed on pages 1456-1458 of the House Journal and pages 1192-1194 of the Senate Journal and that Reengrossed House Bill No. 1383 be amended as follows:

Page 1, line 1, replace the comma with "and"

Page 1, line 2, remove ", and a new section to chapter 49-22.1"

Page 1, line 4, replace the second comma with "and"

Page 1, line 5, replace "49-22.1-03, and 49-22.1-09" with "and subsection 4 of section 49-22-16"

Page 1, line 6, replace the second "and" with a comma

Page 1, line 8, after "routes" insert ", and state agency rules"

Page 1, line 8, replace "budget section" with "legislative management"

Page 1, line 20, overstrike "One individual appointed by the lignite energy council;"

Page 1, line 21, overstrike "g."

Page 1, line 22, overstrike "h." and insert immediately thereafter "g."

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Page 1, line 24, overstrike "j." and insert immediately thereafter "h."

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Page 2, line 3, replace "m." with "k."

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"l. The chairman of the public service commission or the chairman's designee;

m. The state engineer or the state engineer's designee;

n. The director of the game and fish department, or the director's designee;

o. The director of the department of transportation, or the director's designee;

p. The director of the department of environmental quality, or the director's designee;

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state agency's rules if ~~such~~the agency fails to present its position on the proposed site, corridor, or route at least thirty days before the appropriate public hearing."

Renumber accordingly

Reengrossed HB 1383 was placed on the Seventh order of business on the calendar.

2019 TESTIMONY

HB 1383

#1
1/31/19

19.0188.10002

Sixty-sixth
Legislative Assembly
of North Dakota

HOUSE BILL NO. 1383

Introduced by

Representatives Brandenburg, Boe, Headland, Howe, D. Johnson, Schmidt

Senators Dotzenrod, Erbele, Luick, J. Roers, Rust, Wanzek

A BILL for an Act to create and enact ~~two new sections~~a new section to chapter 4.1-01, a new section to chapter 49-22, and a new section to chapter 49-22.1 of the North Dakota Century Code, relating to the creation of an environmental impact mitigation fund ~~and an environmental impact advisory board~~ and to mitigating direct environmental impacts; to amend and reenact subsection 1 of section 4.1-01-18, sections 49-22-05.1, 49-22-09, 49-22.1-03, and 49-22.1-09 of the North Dakota Century Code, relating to the federal environmental law impact review committee, exclusion and avoidance areas and the factors considered by the public service commission when evaluating and designating sites, corridors, and routes; to provide for a report to the budget section; ~~and~~ to provide an appropriation; and to provide a continuing appropriation.

BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF NORTH DAKOTA:

SECTION 1. AMENDMENT. Subsection 1 of section 4.1-01-18 of the North Dakota Century Code is amended and reenacted as follows:

1. The federal environmental law impact review committee consists of:
   a. The commissioner, who shall serve as the chairman;
   b. The governor or the governor's designee;
   c. The majority leader of the house of representatives, or the leader's designee;
   d. The majority leader of the senate, or the leader's designee;
   e. One member of the legislative assembly from the minority party, selected by the chairman of the legislative management;
   f. One individual appointed by the lignite energy council;
   g. One individual appointed by the North Dakota corn growers association;
   h. One individual appointed by the North Dakota grain growers association;
   i. One individual appointed by the North Dakota petroleum council;

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j. One individual appointed by the North Dakota soybean growers association; ~~and~~

k. One individual appointed by the North Dakota stockmen's association;

l. One individual appointed by the North Dakota farm bureau;

m. One individual appointed by the North Dakota farmers union; and

n. Four members from the energy industry appointed by the governor based upon recommendations of entities representing the energy industry.

SECTION 2. A new section to chapter 4.1-01 of the North Dakota Century Code is created and enacted as follows:

Environmental impact mitigation fund - Report to budget section - Continuing appropriation.

1. The moneys accumulated in the environmental impact mitigation fund must be allocated as provided by law and as appropriated by the legislative assembly for distribution by the agriculture commissioner:
   a. To political subdivisions and state agencies to offset impacts of energy development to agricultural land;
   b. To landowners for the mitigation of agricultural land impacted by energy development; and
   c. To landowners of agricultural land who are subject to excessive mitigation of wetlands.
2. Funding may be used only for:
   a. Contracting for consultation with environmental scientists, wildlife biologists, biologists, soil scientists, range scientists, engineers, economists, or scientists in any other field determined to be relevant for services including the evaluation, assessment, and analysis of the physical composition and potential chemical properties of land determined to be impacted by energy development or land to be considered for mitigation;
   b. Reclamation, restoration, or mitigation of land, water resources, or wildlife habitats adversely impacted directly by energy development; and
   c. Offsetting or defraying costs of landowner mitigation in qualifying circumstances as determined by the advisory board.

3. The commissioner is not subject to chapter 54-44.4 when contracting for services under this chapter.

4. The ~~environmental impact advisory board~~federal environmental law impact review committee shall establish criteria for disbursement of environmental impact funds.

5. The commissioner shall make disbursements based upon the determinations made by the ~~environmental impact advisory board~~federal environmental law impact review committee.

6. For purposes of this section, the federal environmental law impact review committee shall hold at least one regular meeting each year and additional meetings as the chairman determines necessary at a time and place to be fixed by the chairman. Special meetings must be called by the presiding officer upon written request of any four members.

7. The federal environmental law impact review committee shall make determinations for the disbursement of grants in accordance with subsection 2 and provide those determinations to the commissioner.

8. The federal environmental law impact review committee shall provide a biennial report to the budget section of the legislative management.

9. All moneys in the environmental impact mitigation fund are appropriated to the commissioner on a continuing basis for the purposes set forth under subsection 2.

~~**SECTION 2.** A new section to chapter 4.1-01 of the North Dakota Century Code is created and enacted as follows:~~

~~**Environmental impact advisory board - Members - Report to budget section.**~~

~~1. There is created an environmental impact advisory board consisting of seventeen members. The advisory board consists of:~~

~~a. The commissioner, who shall serve as the presiding officer;~~

~~b. The governor or the governor's designee;~~

~~c. The majority leader of the house of representatives, or the majority leader's designee;~~

~~d. The majority leader of the senate, or the majority leader's designee;~~

~~e. One member of the legislative assembly from the minority party, selected by the chairman of legislative management;~~

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~~f. One individual appointed by the lignite energy council;~~

~~g. One individual appointed by the North Dakota farm bureau;~~

~~h. One individual appointed by the North Dakota corn growers association;~~

~~i. One individual appointed by the North Dakota grain growers association;~~

~~j. One individual appointed by the North Dakota petroleum council;~~

~~k. One individual appointed by the North Dakota soybean growers association;~~

~~l. One individual appointed by the North Dakota stockmen's association;~~

~~m. One individual appointed by the North Dakota farmers union; and~~

~~n. Four members from the energy industry appointed by the governor based upon recommendations of entities representing the energy industry.~~

~~2. The advisory board shall hold at least one regular meeting each year and additional meetings as the chairman determines necessary at a time and place to be fixed by the chairman. Special meetings must be called by the presiding officer upon written request of any four members.~~

~~3. The advisory board shall make determinations for the disbursement of grants in accordance with subsection 2 of section 1 of this Act and provide those determinations to the commissioner.~~

~~4. The term of office of each appointed member of the board is four years and each term of office commences on the first day of July. The initial terms for the advisory board members must be staggered based upon a method determined by the board.~~

~~5. The advisory board shall provide a biennial report to the budget section of the legislative management.~~

SECTION 3. AMENDMENT. Section 49-22-05.1 of the North Dakota Century Code is amended and reenacted as follows:

49-22-05.1. Exclusion and avoidance areas - Criteria.

1. The commission shall develop criteria to be used in identifying exclusion and avoidance areas and to guide the site, corridor, and route suitability evaluation and designation process. The criteria also may include an identification of impacts and policies or practices which may be considered in the evaluation and designation process.

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2. The commission may not identify prime farmland, unique farmland, or irrigated land as exclusion or avoidance areas when evaluating and designating geographical areas for site, corridor, or route suitability.

3. Except for electric transmission lines in existence before July 1, 1983, areas within five hundred feet [152.4 meters] of an inhabited rural residence must be designated avoidance areas. This criterion does not apply to a water pipeline. The five hundred foot [152.4 meter] avoidance area criteria for an inhabited rural residence may be waived by the owner of the inhabited rural residence in writing.

~~3.~~4. Areas less than one and one-tenth times the height of the turbine from the property line of a nonparticipating landowner and less than three times the height of the turbine or more from an inhabited rural residence of a nonparticipating landowner, must be excluded in the consideration of a site for a wind energy conversion area, unless a variance is granted. The commission may grant a variance if an authorized representative or agent of the permittee, the nonparticipating landowner, and affected parties with associated wind rights file a written agreement expressing the support of all parties for a variance to reduce the setback requirement in this subsection. A nonparticipating landowner is a landowner that has not signed a wind option or an easement agreement with the permittee of the wind energy conversion facility as defined in chapter 17-04. A local zoning authority may require setback distances greater than those required under this subsection. For purposes of this subsection, "height of the turbine" means the distance from the base of the wind turbine to the turbine blade tip when it is in its highest position.

SECTION 4. AMENDMENT. Section 49-22-09 of the North Dakota Century Code is amended and reenacted as follows:

49-22-09. Factors to be considered in evaluating applications and designation of sites, corridors, and routes.

~~The commission shall be guided by, but is not limited to, the following considerations, where applicable, to~~

1. To aid in the evaluation and designation of sites, corridors, and routes, the commission shall consider:

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~~1.~~ a. Available research and investigations relating to the effects of the location, construction, and operation of the proposed facility on public health and welfare, natural resources, and the environment.

~~2.~~ b. The effects of new electric energy conversion and electric transmission technologies and systems designed to minimize adverse environmental effects.

~~3.~~ c. The potential for beneficial uses of waste energy from a proposed electric energy conversion facility.

~~4.~~ d. Adverse direct ~~and indirect~~ environmental effects that cannot be avoided should the proposed site or route be designated.

~~5.~~ e. Alternatives to the proposed site, corridor, or route which are developed during the hearing process and which minimize adverse effects.

~~6.~~ f. Irreversible and irretrievable commitments of natural resources should the proposed site, corridor, or route be designated.

~~7.~~ g. The direct ~~and indirect~~ economic impacts of the proposed facility.

~~8.~~ h. Existing plans of the state, local government, and private entities for other developments at or in the vicinity of the proposed site, corridor, or route.

~~9.~~ i. The effect of the proposed site or route on existing scenic areas, historic sites and structures, and paleontological or archaeological sites.

~~10.~~ j. The effect of the proposed site or route on areas ~~which are~~ unique because of biological wealth or because ~~they~~the areas are habitats for rare and endangered species.

~~11.~~ k. Problems raised by federal agencies, other state agencies, and local entities.

2. In the evaluation and designation of sites, corridors, and routes, the commission may not consider:

a. Adverse indirect environmental effects that cannot be avoided should the proposed site or route be designated; or

b. The indirect economic impacts of the proposed facility.

SECTION 5. A new section to chapter 49-22 of the North Dakota Century Code is created and enacted as follows:

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Mitigating direct environmental impacts.

1. If an applicant elects to provide payment to mitigate any assessed adverse direct environmental, wildlife, or economic impact of a proposed site, corridor, route, or facility, the applicant shall make the payment to the agriculture commissioner.
2. ~~The~~Subject to subsection 3, the agriculture commissioner shall deposit into the environmental impact mitigation fund any moneys paid to mitigate the adverse direct environmental, wildlife, or economic impacts of a proposed site, corridor, route, or facility.
3. At the applicant's request, the agriculture commissioner may provide moneys directly to an organization approved by the federal environmental law impact review committee.

SECTION 6. AMENDMENT. Section 49-22.1-03 of the North Dakota Century Code is amended and reenacted as follows:

49-22.1-03. Exclusion and avoidance areas - Criteria.

1. The commission shall develop criteria to be used in identifying exclusion and avoidance areas and to guide the site, corridor, and route suitability evaluation and designation process.
2. The commission may not identify prime farmland, unique farmland, or irrigated land as exclusion or avoidance areas when evaluating and designating geographical areas for site, corridor, or route suitability.
3. Except for oil and gas transmission lines in existence before July 1, 1983, areas within five hundred feet [152.4 meters] of an inhabited rural residence must be designated avoidance areas.
   a. This criterion does not apply to a water pipeline.
   b. The five hundred foot [152.4 meter] avoidance area criteria for an inhabited rural residence may be waived by the owner of the inhabited rural residence in writing.
   c. The criteria also may include an identification of impacts and policies or practices which may be considered in the evaluation and designation process.

SECTION 7. AMENDMENT. Section 49-22.1-09 of the North Dakota Century Code is amended and reenacted as follows:

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49-22.1-09. Factors to be considered in evaluating applications and designation of sites, corridors, and routes.

~~The commission is guided by, but is not limited to, the following considerations, when applicable, to~~

1. To aid in the evaluation and designation of sites, corridors, and routes, the commission shall consider:
   ~~1.~~ a. Available research and investigations relating to the effects of the location, construction, and operation of the proposed facility on public health and welfare, natural resources, and the environment.
   ~~2.~~ b. The effects of new gas or liquid energy conversion and gas or liquid transmission technologies and systems designed to minimize adverse environmental effects.
   ~~3.~~ c. The potential for beneficial uses of waste energy from a proposed gas or liquid energy conversion facility.
   ~~4.~~ d. Adverse direct ~~and indirect~~ environmental effects that cannot be avoided should the proposed site or route be designated.
   ~~5.~~ e. Alternatives to the proposed site, corridor, or route that are developed during the hearing process and which minimize adverse effects.
   ~~6.~~ f. Irreversible and irretrievable commitments of natural resources should the proposed site, corridor, or route be designated.
   ~~7.~~ g. The direct ~~and indirect~~ economic impacts of the proposed facility.
   ~~8.~~ h. Existing plans of the state, local government, and private entities for other developments at or in the vicinity of the proposed site, corridor, or route.
   ~~9.~~ i. The effect of the proposed site or route on existing scenic areas, historic sites and structures, and paleontological or archaeological sites.
   ~~10.~~ j. The effect of the proposed site or route on areas ~~that are~~ unique because of biological wealth or because the site or route is a habitat for rare and endangered species.
   ~~11.~~ k. Problems raised by federal agencies, other state agencies, and local entities.
2. In the evaluation and designation of sites, corridors, and routes, the commission may not consider:

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a. Adverse indirect environmental effects that cannot be avoided should the proposed site or route be designated; or

b. The indirect economic impacts of the proposed facility.

SECTION 8. A new section to chapter 49-22.1 of the North Dakota Century Code is created and enacted as follows:

Mitigating direct environmental impacts.

1. If an applicant elects to provide payment to mitigate any assessed adverse direct environmental, wildlife, or economic impact of a proposed site, corridor, route, or facility, the applicant shall make the payment to the agriculture commissioner.

2. ~~The~~Subject to subsection 3, the agriculture commissioner shall deposit into the environmental impact mitigation fund any moneys paid to mitigate the adverse direct environmental, wildlife, or economic impacts of a proposed site, corridor, route, or facility.

3. At the applicant's request, the agriculture commissioner may provide moneys directly to an organization approved by the federal environmental law impact review committee.

SECTION 9. APPROPRIATION. There is appropriated out of any moneys in the environmental impact mitigation fund in the state treasury, not otherwise appropriated, the sum of $5,000,000, or so much of the sum as may be necessary, to the agriculture commissioner for the purpose of providing grants to political subdivisions for the mitigation of environmental impacts, for the biennium beginning July 1, 2019, and ending June 30, 2021.

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19.0188.10002
Title.

Prepared by the Legislative Council staff for
Representative Brandenburg
January 30, 2019

PROPOSED AMENDMENTS TO HOUSE BILL NO. 1383

Page 1, line 1, replace "two new sections" with "a new section"

Page 1, line 3, remove "and an environmental impact"

Page 1, line 4, remove "advisory board"

Page 1, line 4, after "reenact" insert "subsection 1 of section 4.1-01-18,"

Page 1, line 6, after "to" insert "the federal environmental law impact review committee,"

Page 1, line 8, remove "and"

Page 1, line 8, after "appropriation" insert "; and to provide a continuing appropriation"

Page 1, after line 9, insert:

"**SECTION 1. AMENDMENT.** Subsection 1 of section 4.1-01-18 of the North Dakota Century Code is amended and reenacted as follows:

1. The federal environmental law impact review committee consists of:

   a. The commissioner, who shall serve as the chairman;

   b. The governor or the governor's designee;

   c. The majority leader of the house of representatives, or the leader's designee;

   d. The majority leader of the senate, or the leader's designee;

   e. One member of the legislative assembly from the minority party, selected by the chairman of the legislative management;

   f. One individual appointed by the lignite energy council;

   g. One individual appointed by the North Dakota corn growers association;

   h. One individual appointed by the North Dakota grain growers association;

   i. One individual appointed by the North Dakota petroleum council;

   j. One individual appointed by the North Dakota soybean growers association; ~~and~~

   k. One individual appointed by the North Dakota stockmen's association;

   l. One individual appointed by the North Dakota farm bureau;

   m. One individual appointed by the North Dakota farmers union; and

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n. Four members from the energy industry appointed by the governor based upon recommendations of entities representing the energy industry"

Page 1, line 12, after "**fund**" insert "**- Report to budget section - Continuing appropriation**"

Page 2, line 11, replace "environmental impact advisory board" with "federal environmental law impact review committee"

Page 2, line 14, replace "environmental impact advisory board" with "federal environmental law impact review committee"

Page 2, after line 14, insert:

"6. For purposes of this section, the federal environmental law impact review committee shall hold at least one regular meeting each year and additional meetings as the chairman determines necessary at a time and place to be fixed by the chairman. Special meetings must be called by the presiding officer upon written request of any four members.

7. The federal environmental law impact review committee shall make determinations for the disbursement of grants in accordance with subsection 2 and provide those determinations to the commissioner.

8. The federal environmental law impact review committee shall provide a biennial report to the budget section of the legislative management.

9. All moneys in the environmental impact mitigation fund are appropriated to the commissioner on a continuing basis for the purposes set forth under subsection 2."

Page 2, remove lines 15 through 31

Page 3, remove lines 1 through 17

Page 5, line 27, replace "The" with "Subject to subsection 3, the"

Page 5, after line 29, insert:

"3. At the applicant's request, the agriculture commissioner may provide moneys directly to an organization approved by the federal environmental law impact review committee."

Page 7, line 27, replace "The" with "Subject to subsection 3, the"

Page 7, after line 29, insert:

"3. At the applicant's request, the agriculture commissioner may provide moneys directly to an organization approved by the federal environmental law impact review committee."

Renumber accordingly

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SUMMARY OF TESTIMONY ON MITIGATION

This memorandum provides a summary of mitigation-related information.

The schedule below provides a summary of information provided by the Department of Transportation (Appendix A) to the Government Operations Division of House Appropriations during the 2019 legislative session.

Department of Transportation Wetland Mitigation Expenditures
As of November 5, 2018
(By Fiscal Year)

	2014	2015	2016	2017	2018
Mitigation banks	$989,599	$1,066,394	$263,299	$115,186	$29,450
Permittee-responsible mitigations (Onsite)	1,682,791	858,317	720,775	44,151	214,901
Monitoring	Not available	60,968	69,242	109,561	183,601
Wetland mitigation total	$2,672,390	$1,985,679	$1,053,316	$268,898	$427,952
Department of Transportation construction program	$820,000,000	$615,000,000	$680,000,000	$382,000,000	$357,000,000
Mitigation as a percentage of program	.33%	.32%	.15%	.07%	.12%

The schedule below provides a summary of information provided by the Aeronautics Commission (Appendix B) to the Government Operations Division of House Appropriations during the 2019 legislative session.

Airport Construction Mitigation Expenditures
(By Fiscal Year)

Year	Airport	Description	Federal funds	State Funds	Local Funds	Total
2014	Jamestown Regional	Environmental mitigation	$729,000	$40,500	$40,500	$810,000
2014	Bismarck Municipal	Environmental mitigation	1,818,000	101,000	101,000	2,020,000
2015	Jamestown Regional	Environmental mitigation	110,700	6,150	6,150	123,000
2015	Bismarck Municipal	Environmental mitigation	1,890,000	105,000	105,000	2,100,000
2016	Jamestown Regional	Environmental mitigation	779,400	43,300	43,300	866,000
2016	Williston Basin International	Purchase wetland credits	297,000	16,500	16,500	330,000
2018	Mandan Municipal	Purchase wetland credits	373,500	20,750	20,750	415,000
2018	Dickinson - Theodore Roosevelt Regional	Purchase wetland credits	125,550	6,975	6,975	139,500
Total			$6,123,150	$340,175	$340,175	$6,803,500

The schedule below provides a summary of information provided by the Department of Mineral Resources (Appendix C) to the Government Operations Division of House Appropriations during the 2019 legislative session.

Mitigation Funding
(By Biennium)

	Actual 2013-15	Actual 2015-17	Estimate 2017-19	Estimate 2019-21
Reclamation of well sites placed into service after July 31, 1983	$2,127,131	$2,087,200	$2,562,000	$3,000,000
Reclamation of well sites placed into service on or before July 31, 1983		954,732	3,426,000	600,000
Legacy brine studies		247,604	1,358,000	400,000
Total	$2,127,131	$3,289,536	$7,346,000	$4,000,000

Appendix D contains information from the North Dakota Association of Counties regarding counties' experience with mitigation.

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NDDOT Wetland Mitigation Expenditures as of 11/05/2018	2008	2009	2010	2011	2012
Mitigation Banks	$195,647.90	$67,999.86	$31,609.00	$2,000.00	$40,496.13
Permittee-responsible mitigations (On-Site)	$0.00	$219,649.65	$0.00	$104,322.85	$496,326.63
In-Lieu Fee Programs	$0.00	$0.00	$0.00	$0.00	$0.00
Monitoring	*	*	*	*	*
Wetland Mitigation Grand Total	**$195,647.90**	**$287,649.51**	**$31,609.00**	**$106.322.85**	**$536,822.76**
NDDOT Construction Program	$275,000,000.00	$319,000,000.00	$410,000,000.00	$590,000,000.00	$550,000,000.00
Wetland Mitigation % of Program	**0.07%**	**0.09%**	**0.01%**	**0.02%**	**0.10%**

NDDOT Wetland Mitigation Expenditures as of 11/05/2018	2013	2014	2015	2016	2017	2018
Mitigation Banks	$139,857.30	$989,599.52	$1,066,394.37	$263,299.79	$115,186.82	$29,450.90
Permittee-responsible mitigations (On-Site)	$611,372.27	$1,682,791.28	$858,316.86	$720,775.20	$44,151.35	$214,900.57
In-Lieu Fee Programs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Monitoring	*	*	$60,967.98	$69,241.85	$109,560.53	$183,601.39
Wetland Mitigation Grand Total	**$751,229.57**	**$2,672,390.80**	**$1,985,679.21**	**$1,053,316.84**	**$268,898.70**	**$427,952.86**
NDDOT Construction Program	$820,000,000.00	$820,000,000.00	$615,000,000.00	$680,000,000.00	$382,000,000.00	$357,000,000.00
Wetland Mitigation % of Program	**0.09%**	**0.33%**	**0.32%**	**0.15%**	**0.07%**	**0.12%**

* Data not available prior to 2015

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Past Projects (2014-2018)

Year	Airport	Description of work	AIP Federal Funds	State Funds	Local Funds	Total Project Cost
2014	Jamestown Regional	Environmental Mitigation	$ 729,000	$ 40,500	$ 40,500	$ 810,000
2014	Bismarck Municipal	Environmental Mitigation	$ 1,818,000	$ 101,000	$ 101,000	$ 2,020,000
2015	Jamestown Regional	Environmental Mitigation	$ 110,700	$ 6,150	$ 6,150	$ 123,000
2015	Bismarck Municipal	Environmental Mitigation	$ 1,890,000	$ 105,000	$ 105,000	$ 2,100,000
2016	Jamestown Regional	Environmental Mitigation	$ 779,400	$ 43,300	$ 43,300	$ 866,000
2016	Williston Basin International Airport	Purchase Wetland Credits	$ 297,000	$ 16,500	$ 16,500	$ 330,000
2018	Mandan Municipal	Purchase Wetland Credits	$ 373,500	$ 20,750	$ 20,750	$ 415,000
2018	Dickinson - Theodore Roosevelt Regional	Purchase Wetland Credits	$ 125,550	$ 6,975	$ 6,975	$ 139,500
Total			**$ 6,123,150**	**$ 340,175**	**$ 340,175**	**$ 6,803,500**

Future Projects (Estimates)

Year	Airport	Description of work	AIP Federal Funds	State Funds	Local Funds	Total Project Cost
2019	Mohall Municipal	Purchase Wetland Credits	$ 180,000	$ 10,000	$ 10,000	$ 200,000
2020	Bismarck Municipal	Environmental Mitigation	$ 5,000,000	$ 277,778	$ 277,778	$ 5,555,555
2020	Mandan Municipal	Environmental Mitigation	$ 810,000	$ 45,000	$ 45,000	$ 900,000
2021	Bismarck Municipal	Environmental Mitigation	$ 5,000,000	$ 277,778	$ 277,778	$ 5,555,555
2022	Bismarck Municipal	Environmental Mitigation	$ 5,000,000	$ 277,778	$ 277,778	$ 5,555,555
Total			**$ 15,989,999**	**$ 888,333**	**$ 888,333**	**$ 17,766,665**

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ENGINEERING AND ENVIRONMENTAL REVIEWS

2018 REVIEWS (203 total)

49 Transportation (37 roads, 12 bridges)
34 Municipal and Industrial Wastewater Impoundments
29 Wind Farms
28 Pipelines
17 Water Infrastructure
9 Coal Mines (mining permits and reclamation)
9 Gas Processing Plants
9 Transmission Lines
7 Garrison Diversion
7 Urban Planning
2 Military
1 Solid Waste
1 Solar (near Casselton)
1 Dam (Heart Butte)

ENGINEERING AND ENVIRONMENTAL REVIEWS

1) The project crosses a mapped landslide.

2) The project is within an area containing mapped landslides.

3) The shallow geology problematic for construction activities.

4) A high water table may create construction problems.

5) The suitability of the surface geology for waste disposal.

6) The potential for underground mines in the area.

MITIGATION FUNDING

	Biennium Totals		Biennium Estimates	
	2013-2015	2015-2017	2017-2019	2019-2021
Reclamation of well sites placed into service after July 31, 1983	$2,127,131	$2,087,200	$2,562,000	$3,000,000
Reclamation of well sites placed into service on or before July 31, 1983		$954,732	$3,426,000	$600,000
Legacy Brine Studies		$247,604	$1,358,000	$400,000
Total	**$2,127,131**	**$3,289,536**	**$7,346,000**	**$4,000,000**

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ANALYSIS OF THE ABANDONED OIL AND GAS WELL PLUGGING AND SITE RECLAMATION FUND FOR THE 2017-19 AND 2019-21 BIENNIUMS

	2017-19 Biennium		2019-21 Biennium	
Beginning balance		$17,382,475		$21,028,063
Add estimated revenues				
Fees, forfeitures, transfers, and recoveries penalties	$3,211,000[1]		$2,157,000[1]	
Oil and gas tax collections	8,399,588[2,3]		7,000,000[2,3]	
Total estimated revenues		11,610,588		9,157,000
Total available		$28,993,063		$30,185,063
Less estimated expenditures and transfers				
Reclamation of well sites placed into service after July 31, 1983	$2,562,000		$3,000,000	
Reclamation of well sites placed into service on or before July 31, 1983 (2017 HB 1347)	3,426,000		600,000	
Transfer to the environmental quality restoration fund (2015 SB 2190)	400,000		400,000	
Brine pond and soil remediation studies (2017 HB 1347)	1,358,000		400,000	
Pipeline restoration and reclamation oversight program - Agriculture Commissioner (2017 HB 1009; 2019 SB 2009)	200,000[5]		200,000[5]	
Miscellaneous[6]	19,000		25,000	
Total estimated expenditures and transfers		7,965,000		4,625,000
Estimated ending balance		$21,028,063		$25,560,063

[1]Revenues to the fund include:

- Fees collected by the Oil and Gas Division of the Industrial Commission for permits or other services;
- Funds received from the forfeiture of drilling and reclamation bonds;
- Funds received from any federal agency or from donations related to well plugging and site reclamation;
- Transfers or grant awards from the oil and gas impact fund; and
- Funds recovered from the sale of confiscated equipment and oil and from certain civil penalties (2019 SB 2123 clarifies the types of equipment that can be confiscated).

[2]In House Bill No. 1032, the 2015 Legislative Assembly increased the oil and gas tax allocations to the fund by $2.5 million per fiscal year, from $5 million to $7 5 million, and increased the allocation limit from an amount that would bring the balance of the fund over $75 million to an amount that would bring the balance of the fund over $100 million. These changes were contingent upon the "large" trigger not being in effect at any time during the first 6 months of the 2015-17 biennium. The contingency was met, which allows the allocation limit and the fund balance limit to increase. In Senate Bill No. 2013, the 2017 Legislative Assembly decreased the oil and gas tax allocations to the fund by $3.5 million per fiscal year, from $7.5 million to $4 million; however, the decrease is effective only for the 2017-19 biennium. DMR recommends $3.5 million per fiscal year for the 2019-2021 biennium.

[3]Estimated 2017-19 biennium revenues - The estimated allocations for the 2017-19 biennium reflect actual allocations through December 2018 and estimated allocations for the remainder of the biennium based on the 2017 legislative revenue forecast.

[4]For the 2017-19 biennium through December 31, 2018, the State Department of Health has not requested any transfers. North Dakota Century Code Section 38-08-04.5 allows for transfers from the abandoned oil and gas well plugging and site reclamation fund with the requirement that any transfers into the

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environmental quality restoration fund will be returned by the State Department of Health to the abandoned oil and gas well plugging and site reclamation fund.

[5]The 2017 Legislative Assembly appropriated $200,000 in House Bill No 1009 As introduced, Senate Bill No. 2009 (2019) also appropriates $200,000. As of December 31, 2018. the Department of Agriculture requested and received $39,230 of the $200,000 appropriation for the 2017-19 biennium.

[6]Miscellaneous expenditures include credit card merchant fees and audit fees.

FUND HISTORY

The fund was established in 1983 under Section 38-08-04.5. The purpose of the fund is to defray the costs of plugging or replugging oil wells, the reclamation of well sites, and all other related activities for wells or pipelines. The money in the fund may be spent, pursuant to a continuing appropriation, for contracting for the plugging of abandoned wells; contracting for the reclamation of abandoned drilling and production sites, saltwater disposal pits, drilling fluid pits, and access roads; paying mineral owners their royalty share of confiscated oil; and paying any contract-related expenses. The Industrial Commission is to report to the Budget Section each biennium on the expenditures of the fund and the fund balance.

The 2015 Legislative Assembly, in House Bill No. 1032, increased the oil and gas tax allocation to the fund by $2.5 million per fiscal year, from $5 million to $7.5 million, and increased the allocation limit from an amount that would bring the balance of the fund over $75 million to an amount that would bring the balance of the fund over $100 million. In Senate Bill No. 2013, the 2017 Legislative Assembly decreased the oil and gas tax allocations to the fund by $3.5 million per fiscal year, from $7.5 million to $4 million; however, the decrease is effective only for the 2017-19 biennium.

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Kadrmas, Chris J.

From: Terry O. Traynor <terry.traynor@ndaco.org>
Sent: Sunday, January 27, 2019 4:34 PM
To: Kadrmas, Chris J.
Cc: Brandenburg, Michael D.
Subject: Mitigation in Road Construction

***** CAUTION: This email originated from an outside source. Do not click links or open attachments unless you know they are safe. *****

Chris,
I contacted the four big counties about Rep. Brandenberg's questions concerning mitigation on road projects. I contacted these four because they all have staff engineers and they all have active construction programs.

All four have a number of examples of projects requiring mitigation. As they stated, virtually every project that crosses or borders a wetland may result in the dedication of mitigation acres. Obviously this becomes more common outside the Red River Valley and outside the drier Southwest.

Most, in recent years, they have used three methods to address the replacement of wetland acres disturbed on a temporary or permanent basis by construction.

1. Purchase and dedication of acres through payment to a conservation organization such as Ducks Unlimited.

3. Cooperative agreement with USFW to restore a previously drained wetland in their control, or

2. Creation of replacement acres within the road project right-of-way or in other county owned areas.

Several indicated that purchasing "wetland credits" from DU is likely more expensive, but the documentation and long term monitoring of a "replacement" is much more complicated.

The following is likely a good description of the problem and costs from one of the counties.

"The CORPS is claiming jurisdiction over areas they would not have claimed 10 years ago and definitely would not have claimed 15 years ago. If we are doing construction in an area where the CORPS has stated it could be an impact area, we would need to prove to them that is not their jurisdictional waters. Our choice is to either spend a lot of time and money fighting them, or cave and agree to mitigate all wetlands even if they were artificial. Currently we can either mitigate on site and pay an environmental company to monitor the wetland for the next 5 years or write a check to Ducks Unlimited and buy wetland credits. It costs around $50,000/Acre to buy wetland credits from Ducks Unlimited. The cost to construct on sight has also grown due to the additional documentation requirement from the CORPS; it costs around $15,000 to $20,000 to build the onsite wetlands (per acre) and an additional $30,000 to $40,000 to document over the 5 to 7 years.

When we impact wetlands on a USFW easements, we typically end up working with the local USFW refuge and try to find a drain area and restore the wetland. All the cost of buying additional easements and construction cost are the counties. One downside is, if we impact 0.5 acres and restore a 2 acre wetlands we do not get use it to mitigate a future project.

Costs consist of Wetland Studies, Wetland Mitigation, and Wetland Monitoring. So to put a cost on mitigation I would estimate we average around $100,000 (maybe more) on mitigations with the exception of s proposed project for 2018.

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This project is still on hold with the CORPS of engineers, as it would be around $400,000 to mitigate a $800,000 project within our existing ditch right of way."

Terry Traynor
701-328-7321
1661 Capitol Way
Bismarck, ND 58501

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CHAPTER 69-06-08
CRITERIA

Section
69-06-08-01 Energy Conversion Facility Siting Criteria
69-06-08-02 Transmission Facility Corridor and Route Criteria

69-06-08-01. Energy conversion facility siting criteria.

The following criteria must guide and govern the preparation of the inventory of exclusion and avoidance areas, and the site suitability evaluation process.

1. **Exclusion areas.** The following geographical areas must be excluded in the consideration of a site for an energy conversion facility.

   a. Designated or registered national: parks; memorial parks; historic sites and landmarks; natural landmarks; historic districts; monuments; wilderness areas; wildlife areas; wild, scenic, or recreational rivers; wildlife refuges; and grasslands.

   b. Designated or registered state: parks; forests; forest management lands; historic sites; monuments; historical markers; archaeological sites; grasslands; wild, scenic, or recreational rivers; game refuges; game management areas; management areas; and nature preserves.

   c. County parks and recreational areas; municipal parks; parks owned or administered by other governmental subdivisions; hardwood draws; and enrolled woodlands.

   d. Prime farmland and unique farmland, as defined by the land inventory and monitoring division of the soil conservation service, United States department of agriculture, in 7 C.F.R. part 657; provided, however, that if the commission finds that the prime farmland and unique farmland that will be removed from use for the life of the facility is of such small acreage as to be of negligible impact on agricultural productions, this exclusion does not apply.

   e. Irrigated land.

   f. Areas critical to the life stages of threatened or endangered animal or plant species.

   g. Areas where animal or plant species that are unique or rare to this state would be irreversibly damaged.

   h. Areas within one thousand two hundred feet of the geographic center of an intercontinental ballistic missile (ICBM) launch or launch control facility.

2. **Additional exclusion areas for wind energy conversion facilities.** The following geographical areas must be excluded in the consideration of a site for a wind energy conversion facility:

   a. Areas within:

      (1) One and one-tenth times the height of the turbine from interstate or state roadway right of way;

      (2) One and one-tenth times the height of the turbine plus seventy-five feet from the centerline of any county or maintained township roadway;

      (3) One and one-tenth times the height of the turbine from any railroad right of way;

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(4) One and one-tenth times the height of the turbine from a one hundred fifteen kilovolt or higher transmission line; and

(5) One and one-tenth times the height of the turbine from the property line of a nonparticipating landowner and three times the height of the turbine from an inhabited rural residence of a nonparticipating landowner, unless a variance is granted. A variance may be granted if an authorized representative or agent of the permittee, the nonparticipating landowner, and affected parties with associated wind rights file a written agreement expressing all parties' support for a variance to reduce the setback requirement in this subsection. A nonparticipating landowner is a landowner that has not signed a wind option or an easement agreement with the permittee of the wind energy conversion facility as defined in North Dakota Century Code chapter 17-04.

3. **Avoidance areas.** The following geographical areas may not be approved as a site for an energy conversion facility unless the applicant shows that under the circumstances there is no reasonable alternative. In determining whether an avoidance area should be designated for a facility the commission may consider, among other things, the proposed management of adverse impacts; the orderly siting of facilities; system reliability and integrity; the efficient use of resources; and alternative sites. Economic considerations alone will not justify approval of these areas. A buffer zone of a reasonable width to protect the integrity of the area must be included. Natural screening may be considered in determining the width of the buffer zone.

   a. Historical resources which are not designated as exclusion areas.

   b. Areas within the city limits of a city or the boundaries of a military installation.

   c. Areas within known floodplains as defined by the geographical boundaries of the hundred-year flood.

   d. Areas that are geologically unstable.

   e. Woodlands and wetlands.

   f. Areas of recreational significance which are not designated as exclusion areas.

4. **Additional avoidance areas for wind energy conversion facilities.** A wind energy conversion facility site must not include a geographic area where, due to operation of the facility, the sound levels within one hundred feet of an inhabited residence or a community building will exceed fifty dBA. The sound level avoidance area criteria may be waived in writing by the owner of the occupied residence or the community building.

5. **Selection criteria.** A site may be approved in an area only when it is demonstrated to the commission by the applicant that any significant adverse effects resulting from the location, construction, and operation of the facility in that area as they relate to the following, will be at an acceptable minimum, or that those effects will be managed and maintained at an acceptable minimum. The effects to be considered include:

   a. The impact upon agriculture:

      (1) Agricultural production.

      (2) Family farms and ranches.

      (3) Land which the owner demonstrates has soil, topography, drainage, and an available water supply that cause the land to be economically suitable for irrigation.

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(4) Surface drainage patterns and ground water flow patterns.

(5) The agricultural quality of the cropland.

b. The impact upon the availability and adequacy of:

(1) Law enforcement.

(2) School systems and education programs.

(3) Governmental services and facilities.

(4) General and mental health care facilities.

(5) Recreational programs and facilities.

(6) Transportation facilities and networks.

(7) Retail service facilities.

(8) Utility services.

c. The impact upon:

(1) Local institutions.

(2) Noise-sensitive land uses.

(3) Light-sensitive land uses.

(4) Rural residences and businesses.

(5) Aquifers.

(6) Human health and safety.

(7) Animal health and safety.

(8) Plant life.

(9) Temporary and permanent housing.

(10) Temporary and permanent skilled and unskilled labor.

d. The cumulative effects of the location of the facility in relation to existing and planned facilities and other industrial development.

6. **Policy criteria.** The commission may give preference to an applicant that will maximize benefits that result from the adoption of the following policies and practices, and in a proper case may require the adoption of such policies and practices. The commission may also give preference to an applicant that will maximize interstate benefits. The benefits to be considered include:

a. Recycling of the conversion byproducts and effluents.

b. Energy conservation through location, process, and design.

c. Training and utilization of available labor in this state for the general and specialized skills required.

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d. Use of a primary energy source or raw material located within the state.

e. Not relocating residents.

f. The dedication of an area adjacent to the facility to land uses such as recreation, agriculture, or wildlife management.

g. Economies of construction and operation.

h. Secondary uses of appropriate associated facilities for recreation and the enhancement of wildlife.

i. Use of citizen coordinating committees.

j. A commitment of a portion of the energy produced for use in this state.

k. Labor relations.

l. The coordination of facilities.

m. Monitoring of impacts.

n. A commitment to install lighting mitigation technology for wind energy conversion facilities subject to commercial availability and federal aviation administration approval.

History: Amended effective August 1, 1979; July 1, 2006; April 1, 2013; July 1, 2017; July 1, 2018.
General Authority: NDCC 28-32-02, 49-22-18
Law Implemented: NDCC 49-22-05.1, 49-22.1-03

69-06-08-02. Transmission facility corridor and route criteria.

The following criteria must guide and govern the preparation of the inventory of exclusion and avoidance areas, and the corridor and route suitability evaluation process. Exclusion and avoidance areas may be located within a corridor, but at no given point may such an area or areas encompass more than fifty percent of the corridor width unless there is no reasonable alternative.

1. **Exclusion areas.** The following geographical areas must be excluded in the consideration of a route for a transmission facility. A buffer zone of a reasonable width to protect the integrity of the area must be included. Natural screening may be considered in determining the width of the buffer zone.

   a. Designated or registered national: parks; memorial parks; historic sites and landmarks; natural landmarks; monuments; and wilderness areas.

   b. Designated or registered state: parks; historic sites; monuments; historical markers; archaeological sites; and nature preserves.

   c. County parks and recreational areas; municipal parks; and parks owned or administered by other governmental subdivisions.

   d. Areas critical to the life stages of threatened or endangered animal or plant species.

   e. Areas where animal or plant species that are unique or rare to this state would be irreversibly damaged.

   f. Areas within one thousand two hundred feet of the geographic center of an intercontinental ballistic missile (ICBM) launch or launch control facility.

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g. Areas within thirty feet on either side of a direct line between intercontinental ballistic missile (ICBM) launch or launch control facilities to avoid microwave interference.

2. **Avoidance areas.** The following geographical areas may not be considered in the routing of a transmission facility unless the applicant shows that under the circumstances there is no reasonable alternative. In determining whether an avoidance area should be designated for a facility, the commission may consider, among other things, the proposed management of adverse impacts; the orderly siting of facilities; system reliability and integrity; the efficient use of resources; and alternative routes. Economic considerations alone will not justify approval of these areas. A buffer zone of a reasonable width to protect the integrity of the area will be included unless a distance is specified in the criteria. Natural screening may be considered in determining the width of the buffer zone.

   a. Designated or registered national: historic districts; wildlife areas; wild, scenic, or recreational rivers; wildlife refuges; and grasslands.

   b. Designated or registered state: wild, scenic, or recreational rivers; game refuges; game management areas; management areas; forests; forest management lands; and grasslands.

   c. Historical resources which are not specifically designated as exclusion or avoidance areas.

   d. Areas which are geologically unstable.

   e. Within five hundred feet [152.4 meters] of a residence, school, or place of business. This criterion shall not apply to a water pipeline transmission facility.

   f. Reservoirs and municipal water supplies.

   g. Water sources for organized rural water districts.

   h. Irrigated land. This criterion shall not apply to an underground transmission facility.

   i. Areas of recreational significance which are not designated as exclusion areas.

3. **Selection criteria.** A corridor or route shall be designated only when it is demonstrated to the commission by the applicant that any significant adverse effects which will result from the location, construction, and maintenance of the facility as they relate to the following, will be at an acceptable minimum, or that those effects will be managed and maintained at an acceptable minimum. The effects to be considered include:

   a. The impact upon agriculture:

      (1) Agricultural production.

      (2) Family farms and ranches.

      (3) Land which the owner can demonstrate has soil, topography, drainage, and an available water supply that cause the land to be economically suitable for irrigation.

      (4) Surface drainage patterns and ground water flow patterns.

   b. The impact upon:

      (1) Sound-sensitive land uses.

      (2) The visual effect on the adjacent area.

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(3) Extractive and storage resources.

(4) Wetlands, woodlands, and wooded areas.

(5) Radio and television reception, and other communication or electronic control facilities.

(6) Human health and safety.

(7) Animal health and safety.

(8) Plant life.

4. **Policy criteria.** The commission may give preference to an applicant that will maximize benefits that result from the adoption of the following policies and practices, and in a proper case may require the adoption of such policies and practices. The commission may also give preference to an applicant that will maximize interstate benefits. The benefits to be considered include:

   a. Location and design.

   b. Training and utilization of available labor in this state for the general and specialized skills required.

   c. Economies of construction and operation.

   d. Use of citizen coordinating committees.

   e. A commitment of a portion of the transmitted product for use in this state.

   f. Labor relations.

   g. The coordination of facilities.

   h. Monitoring of impacts.

   i. Utilization of existing and proposed rights of way and corridors.

   j. Other existing or proposed transmission facilities.

History: Amended effective August 1, 1979; January 1, 1982; February 1, 1995; July 1, 2006; April 1, 2013.
General Authority: NDCC 49-22-18
Law Implemented: NDCC 49-22-05.1

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COMMISSIONER
DOUG GOEHRING

ndda@nd.gov
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Testimony of Doug Goehring, Agriculture Commissioner
North Dakota Department of Agriculture
House Bill 1383
House Agriculture Committee
Peace Garden Room
January 31, 2019

Chairman Johnson and members of the House Agriculture committee, I am Agriculture Commissioner Doug Goehring. Thank you for the opportunity to appear before the committee. I am here today in support of House Bill 1383, as amended.

I am in support of this bill because it brings to light the issue of indirect mitigation injustices that are occurring, and we believe this is a step in the right direction. This bill addresses this issue and allows the landowners that are impacted by mitigation, to have access to resources when mitigation is being considered on their land. For far too long, the landowners have been absent from the discussion about mitigation and are being used like pawns. Unfortunately, they are the ones most egregiously impacted by decisions from a state agency or outside groups, due to exclusionary areas. With this bill, landowners will have the ability to apply for mitigation funds to potentially assist them with hiring experts to help guide the decisions made on their lands regarding mitigation.

By placing this responsibility under the purview of the Federal Environmental Law Impact Review Committee, we will be utilizing an existing committee that is broad based and represents agriculture, energy and landowners.

Chairman Johnson and committee members, I ask for your support of HB 1383, as amended, and would be happy to take any questions.

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HB 1383

Chairman Johnson and members of the House Agriculture Committee.

My name is Randy Melvin. I am the President of the North Dakota Corn Growers Association and also a farmer from Buffalo, ND.

I appreciate the opportunity today to voice my support of House Bill 1383.

The late Executive Director of the ND Corn Growers, Dale Ihry had been working with Representative Brandenburg on advancing the policy changes proposed in HB 1383. Dale Ihry was extremely knowledgeable about USDA programs and federal policy with respect to mitigation.

Mr. Ihry anticipated this legislation, and he had personally told me how he believed the mitigation funds could be used to reclaim and enhance habitat and wetlands when energy development affects those resources on private property. I am deeply sorrowed that Dale is no longer with us to convey that enthusiasm for the proposals outlined in this bill. The Environmental Impact Mitigation Fund and the proposed board is the correct way for North Dakota private property owners to have options when a direct environmental impact occurs on their property. We as property owners should have access to funding options to help mitigate these direct impacts.

Mitigation, reclamation and restoration of impacted property can be a very costly process. There are many benefits to both property owners and for the environment when mitigation happens correctly. Property that has been mitigated may have more federal policy restrictions than property that has not been mitigated. As property owners we are willing to have these restrictions with the ability for us to choose where we would like to have the projects that might replace energy development impacted property.

We believe that the opportunity to create better quality environmentally sensitive areas is a win for conservation groups, sportsmen and us as property owners.

Farmers and ranchers in North Dakota are very concerned about what happens with our property. We take great pride in being the caretakers of our property for the next generation.

We feel that HB 1383 will help property owners have a seat at the table in this important discussion.

I ask you for your support of HB 1383.

Thank you for your time today and ask for any questions.

Randy Melvin

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North Dakota Grain Growers Association

You Raise. We Represent. www.ndgga.com

North Dakota Grain Growers Association
Testimony on HB 1383
House Agriculture Committee
January 31, 2019

Chairman Johnson, members of the House Agriculture Committee, for the record my name is Dennis Haugen; I am a diversified family farmer and businessman from Hannaford, North Dakota, and I am also 1st Vice President of the North Dakota Grain Growers Association (NDGGA). Through our contracts with the North Dakota Wheat Commission and the North Dakota Barley Council NDGGA engages in domestic policy issues on the state and federal levels on behalf of North Dakota wheat and barley farmers. I appear before you today in all 3 capacities to support HB 1383.

Chairman Johnson, members of the House Agriculture Committee, HB 1383 is much needed legislation. I farm among the wind towers at the Ashtabula Wind Farm in Barnes, Griggs, and Steele Counties in North Dakota. I can tell you that in the 10 years I have farmed around those wind towers everything is fine; the wildlife are fine, the landowners are fine, the weeds are fine, the access roads are fine and the wind energy people are fine.

All of this adverse environmental impact stuff that you hear of is just not reality; in 10 years farming around those towers I've not seen even one bird kill much less any other impacts. That's especially why eliminating indirect mitigation in this bill is so important. The indirect impact assessments made up by the North Dakota Game and Fish Department and assessed by the North Dakota Public Service Commission are nothing more than a money grab for environmental interests and have nothing to do with mitigating the surroundings in the real world.

Also using mitigation excuses as siting criteria is just plain wrong. The Ashtabula Wind Farm is located on both pasture land as well as crop land; the deer, ducks, coyotes, badgers, geese and skunks continue to inhabit the area without hesitation. Wind farm siting should be based on common-sense locations in cooperation with landowners.

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Therefore, Chairman Johnson, members of the House Agriculture Committee, HB 1383 is much needed legislation that greatly helps to solve the mitigation issues surrounding energy development. I and the North Dakota Grain Growers Association respectfully request a Do Pass recommendation from the House Agriculture Committee and a favorable vote in the House.

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North Dakota Grain Growers Association

You Raise. We Represent. www.ndgga.com

North Dakota Grain Growers Association
Testimony on HB 1383
House Agriculture Committee
January 31, 2019

Chairman Johnson, members of the House Agriculture Committee, for the record my name is Tom Bernhardt; I am a diversified family farmer from Linton, North Dakota and I am also Secretary/Treasurer of the North Dakota Grain Growers Association (NDGGA). I appear in both capacities today in support of HB 1383.

Chairman Johnson, members of the House Agriculture Committee, I am involved in a wind farm project in my home area of Linton. I know the heartache, the anguish, and the anger associated with the results of the North Dakota Game and Fish Department assessment of indirect mitigation impacts in energy development and what that has done to my farm and to my neighbors.

First, I think everyone agrees there are direct impacts that should be mitigated in energy development. Landowners, energy companies and environmental interests can all come together to agree on this. It's when the North Dakota Game and Fish Department started accessing arbitrary indirect mitigation impacts, which negatively impacted my farm, my family and my neighbors, is where the trouble began. The distress is still felt in Emmons County today.

Here's the scenario; the wind energy company Nextera decided to site a wind farm in my home area. I and my neighbors worked with Nextera to site wind towers in areas that made sense both for the farms involved as well as for NextEra. That is how the system should work.

Then the North Dakota Game and Fish Department stepped in and started throwing around costly arbitrary indirect mitigation impacts. This held me, my neighbors and NextEra hostage because if the arbitrary indirect impact costs were not met the wind farm wouldn't be sited in our area. In fact, North Dakota was endangered of losing the entire project to another state all because of North Dakota Game and Fish Department and ultimately the North Dakota PSC.

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To address this situation NextEra either had two choices, pay off North Dakota Game and Fish Department's indirect impact fees and siting requirements or move elsewhere. So the brewing of trouble intensified. Impacts accessed by North Dakota Game and Fish Department and their resulting cost necessitated that NextEra relocate the landowner/Nextera agreed upon sites. Towers were moved from pastures to productive farmland; neighbors lost the economic opportunity to site towers on their land because the arbitrary impacts and the resulting costs stole their opportunities away. When the dust settled the wind farm went forward, but at a tremendous cost, both monetary and emotional, to my community.

Why did this happen you ask? Two reasons, money and power. Not the power generated by wind towers but power generated by regulatory over-reach from North Dakota's own state agencies. Then there's the money; North Dakota Game and Fish Department doesn't have the expertise nor the personnel to address energy impacts but they sure have "friends" who do. Friends who "graciously" would take NextEra's over $500,000 for "indirect mitigation" purposes. If the over $500,000 was paid, the permit would be granted.

This is what happened to me, my family, my farm, my neighbors. Don't let it happen again! Please pass HB 1383!!

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WIND
Wind Industry of North Dakota

House Agriculture Committee

January 31, 2019

Support HB 1383

Chairman Johnson and Members of the Committee,

For the record my name is Mike Krumwiede, and I'm here today representing Wind Industry of ND, or WIND. We are a coalition of industry members and supporters formed in 2018 that advocates for the continued support of wind as one of North Dakota's valuable energy resources. Our current coalition includes:

- American Wind Energy Association (AWEA)
- Apex Clean Energy
- Capital Power
- EDF Renewable Energy
- Enel Green Power North America Inc.
- Invenergy
- NextEra Energy Resources
- Tenaska
- Tradewind
- Wanzek Construction, Inc.

These members came together because we believe wind is an abundant asset in our state which should be harnessed for the continued benefit of our local communities and residents. North Dakota currently ranks 5th in share of electricity generated from wind. Wind farms now reside in 27 counties and those 29 commercial wind farms in North Dakota generated 3000mw of power in 2016. The Wind industry currently accounts for three to four thousand permanent direct, indirect, and manufacturing jobs in ND with a total business activity of $174 million in 2016. In that same year the wind industry paid property taxes of $7.7 million and $14.4 million in lease payments to North Dakota Landowners. The result of all this activity is that Wind now comprises approximately 27% of the energy mix used by utilities in North Dakota.

WIND supports HB 1383 because the science of indirect environmental impacts is inconclusive and, accordingly, the PSC should not require mitigation of those impacts.

For this reason, we respectfully request a Do Pass recommendation on HB 1383. Thank you for your time.

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House Bill 1383

Presented by: **Randy Christmann, Commissioner**
Public Service Commission

Before: **House Agriculture Committee**
The Honorable Dennis Johnson, Chairman

Date: **January 31, 2019**

TESTIMONY

Mr. Chairman and committee members, I am Randy Christmann, Commissioner with the Public Service Commission.

The Commission has the powers given to it by the legislature and will work to implement any task or responsibility the legislature asks the Commission to undertake. In 1975, the state legislature tasked the Public Service Commission with implementing Chapter 49-22, the Siting Act, to ensure that certain energy infrastructure projects produce "minimal adverse effects on the environment and the welfare of the citizens of this state." Since that time, the Commission has sited a multitude of energy infrastructure projects with nearly 10 billion dollars of jurisdictional infrastructure investment in just the last 6 years.

In 2017, the legislature split the Siting Act into two separate chapters. Now, 49-22 relates to the siting of electrical energy conversion and transmission facilities. Chapter 49-22.1 relates to the siting of gas or liquid energy conversion and transmission facilities. So, for clarification, Sections 3 and 4 of the HB 1383

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apply to electric facilities and Sections 6 and 7 of the bill apply to gas & liquid facilities.

Sections 3 and 6 deal with prime farmland, unique farmland, and irrigation considerations. Sections 4 and 7 deal with indirect environmental and economic impacts.

Prime Farmland, Unique Farmland, and Irrigated Land

The Siting Act tasks the Commission with developing exclusion areas and avoidance areas to guide the siting process. Nearly four decades ago, the Commission identified prime and unique farmland, and irrigated land as exclusion areas for the siting of energy conversion facilities. This bill precludes the Commission from designating prime farmland, unique farmland, and irrigated land as exclusion areas or as avoidance areas.

The Commission has already started the process of rulemaking to reevaluate the old designation of prime farmland as an exclusion area after a recent application made the Commission reconsider its applicability to the current energy siting landscape. Irrigated land has also been added to the rulemaking. If this bill is enacted, our rule amendments will no longer be necessary. However, if this bill does not become law or if you choose to eliminate sections 3 and 6, we will hold a full rulemaking proceeding on these exclusion areas.

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This rulemaking process would involve soliciting input from the public, including the energy industry, the ag industry, and other interested stakeholders. This process allows the Commission to base a decision upon a robust record and balance a variety of interests. That decision would then proceed to the Legislative Administrative Rules Committee.

Indirect Environmental and Economic Impacts

Sections 4 and 7 of the bill prohibit consideration of indirect environmental effects and indirect economic impacts of infrastructure projects from being considered for location, construction and operation of energy facilities. This suggestion is concerning and will create ambiguity in the siting process.

The Siting Act has worked well to enable orderly development of infrastructure due to its flexibility and broad Commission discretion. Removing the ability for the Commission to consider indirect environmental and economic impacts limits the Commission's ability to tackle future unknowns and may have far-reaching implications moving forward. There will also be difficulty in drawing a line between what is a direct and indirect impact.

As it is written now, there is no ambiguity of what the Commission can hear. The Commission can listen to reasoned, reasonable, and substantiated concerns from local landowners, businesses, schools, counties, townships,

emergency managers, and so forth, and use this input to promote constructive and orderly development of energy infrastructure.

Dealing with these indirect impacts is an important part of preventing the type of landowner fatigue that can plague energy development areas if not properly addressed. This is exactly how developers become aware of these impacts so they can be addressed before they become problems, and in many cases our Orders simply memorialize voluntary agreements made by developers. These agreements include things like required road upgrades, underpasses for landowners, participation in the Sakakawea Area Spill Response program, local emergency responder training programs, our light mitigation effort, and the list could go on and on.

We feel that it is important for you as policy makers to know that the Commission has not compelled payments for indirect environmental impacts in any of our siting cases which were not previously agreed to in a voluntary settlement. It has been alleged that the Commission mandated off-set payments for indirect environmental impacts in a 2017 case. Let me briefly expound upon that.

The Siting Act provides that the Commission "is encouraged to cooperate with" any state department, agency, or officer relating to the Siting Act. In a 2017 case, there was testimony from North Dakota Game and Fish expressing

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concerns over "habitat loss and continued fragmentation of native, unbroken prairie" and that they have "determined unbroken prairie to be one of the highest valued resources in our state." The United States Fish and Wildlife Service provided comments corroborating Game and Fish's comments. Despite Game and Fish's and U. S. Fish and Wildlife's comments, the company's environmental consultant chose not to respond to those allegations during the hearing.

Having heard these concerns and objections, the Commission addressed the issue in the manner the Siting Act envisions. The Commission requested that the company respond to the comments of North Dakota Game and Fish to build a record upon which we could base a decision. The Company responded with a letter responding to Game and Fish's concerns and stated that it had engaged in "extensive collaboration" and had "already committed to developing a voluntary native prairie offset package." Following this response, the Commission received a letter from Game and Fish indicating that they had discussed the off-set package, had an agreement, and "believe[d] that the project should move forward."

Having received a statement that both groups had come to a resolution, the Commission determined that the project had minimal adverse impacts on the environment and welfare of the citizens of the state. At no point was the Commission involved in the details of the environmental impact package, at no point did the Commission determine that any specific amount should be paid,

and at no point did the Commission compel the company to provide the off-set package. The Commission's Order simply acknowledges the concerns that were brought forward and that a voluntary settlement had been reached.

If the intent is to preemptively prevent the Commission from considering offset packages to mitigate environmental impacts, the legislation should be narrowly tailored to just that. If the intent is for the Commission to not consider expertise provided by other agencies, a vast resource of knowledge would be lost. Removing the Commission's ability to hear indirect economic and environmental factors will handicap the fundamental purpose of the Siting Act.

The siting of energy infrastructure in North Dakota has been a success story. Since the implementation of the Siting Act, billions of dollars of infrastructure has been located, constructed, and operated in a manner that has produced minimal adverse effects on the environment and upon the welfare of the citizens of this state. That is exactly the stated goal of the Siting Act.

Mr. Chairman, this concludes my testimony. Thank you for the opportunity to present this information. I will be happy to answer any questions.

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Ducks Unlimited

TESTIMONY IN OPPOSITION TO HB 1383
Carmen Miller, Director of Public Policy, Ducks Unlimited
North Dakota House Agriculture Committee
January 31, 2019

Good morning, Chairman Johnson and members of the committee. My name is Carmen Miller and I am the Director of Public Policy for Ducks Unlimited's Great Plains Region in Bismarck, submitting this testimony in opposition to HB 1383. Ducks Unlimited was founded in 1937 and is now the world's largest private waterfowl and wetlands conservation organization, with over 80 years of experience restoring and protecting wetlands and other aquatic habitat. DU has been working in North Dakota for over 30 years, has over 4000 members in the State, has invested over $100 million in North Dakota, and employs a staff of over 40 in an office in Bismarck which serves as a regional headquarters for 7 states.

HB 1383 is concerning for three reasons: (1) It eliminates the consideration of indirect impacts to the environment and wildlife resulting from energy transmission, conversion, and siting; (2) It proposes to establish an environmental impact mitigation fund advisory board with no representation from the environmental, wildlife, or natural resources community; and (3) It proposes to utilize taxpayer dollars to subsidize the mitigation of environmental impacts from energy development.

With respect to indirect impacts, I want to provide the committee with scientific information on the indirect impacts of wind development on breeding duck pairs within North Dakota. Ducks Unlimited is generally supportive of the wind industry as a renewable source of energy that can be produced locally. DU has been monitoring the growth of the industry in North Dakota since 2003, and has been involved in numerous wind energy collaboratives, including the Northern Plains Wind Energy Forum and the North Dakota Wind and Wildlife Collaborative. North Dakota is in the heart of the Prairie Pothole Region, known as "the duck factory" of North America, which provides breeding habitat for more than 50% of the continent's population of breeding ducks. North Dakota has an export economy – we export wheat, corn, soybeans, electricity, oil and ducks. Attached to my testimony are two maps showing, first, the Prairie Pothole Region, and the density of breeding pairs in that landscape, and second, the overlay of the PPR with average annual wind speed. In addition to being the "duck factory" of North America, North Dakota has also been referred to as the "Saudi Arabia of wind," and these maps illustrate that.

DU began researching both direct and indirect impacts of wind development in 2008, with a focus on the impact on breeding females. Direct impacts typically involve collisions with wind turbines, or the actual placement of a wind turbine directly in a wetland. Indirect impacts involve the avoidance of otherwise typical habitat. Ducks Unlimited researchers spent two summers conducting the first-ever study on the impacts of collisions on just breeding female ducks. While collisions have a significant impact on migrating birds, there were limited collisions for breeding female mallards and blue-winged teals, suggesting that wind turbines had no direct effect on female survival. In other words, breeding females were not meaningfully impacted by collisions with wind turbines.

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During the summers of 2008-2010, Ducks Unlimited partnered with the US Fish and Wildlife Service and NextEra Energy to study the impacts of wind energy development on the density of breeding duck pairs. For three summers, researchers conducted field surveys of breeding pairs in the Kulm-Edgeley and Tatanka wind farms, which involved over 10,000 wetland visits and observation of over 15,000 breeding duck pairs, and comparisons of conditions and pairs at those sites with comparable reference sites without wind energy development. The study demonstrated that five species of dabbling ducks exhibited an average decline of 20% within 800 meters of wind turbines on the Tatanka and Kulm/Edgeley wind farms. These species include the Mallard, Northern Pintail, Northern Shoveler, Blue-winged Teal, and Gadwall, all species important to the "duck factory of North America." In the breeding-intense landscape of the Prairie Pothole Region, the indirect impacts of wind energy development, marked by habitat avoidance, are actually more significant than the direct impacts, or collisions.

Indirect impacts in the form of habitat avoidance are very real, documented, and the subject of peer-reviewed and published scientific research. They will continue to exist, regardless of how these issues are addressed in the Century Code. A 20% reduction in one of our state's exports should not be taken lightly.

HB 1383 also proposes to establish an advisory board to administer and consider grants from an environmental impact mitigation fund, and the board has absolutely no representation from the environmental, wildlife, or natural resources communities. At least state agencies with expertise in these areas, such as, for example, the Game and Fish Department, the Water Commission, or the Department of Natural Resources, should be included on this board, if it is established. By eliminating the input of these constituencies, this proposal ignores an important part of North Dakota's economy. Tourism, which is highly depending on our state's natural resources, is the third largest sector of the economy, with hunting and fishing alone contributing $2 billion annually. The Legislature would not enact policies relating to education without the input of teachers, or policies relating to agriculture without the input of farmers, and similarly, needs the advice and consent of this industry in administering such a fund.

And finally, this committee should reject the proposal in this bill to appropriate $5 million for an environmental impact mitigation fund. If energy development has environmental, wildlife, or other impacts, those should be addressed and paid for by the developers. Taxpayers should not be subsidizing the mitigation of impacts from energy development.

For these reasons, we urge the committee to adopt a do not pass recommendation. Thank you for your time and consideration of this important issue, and for your service.

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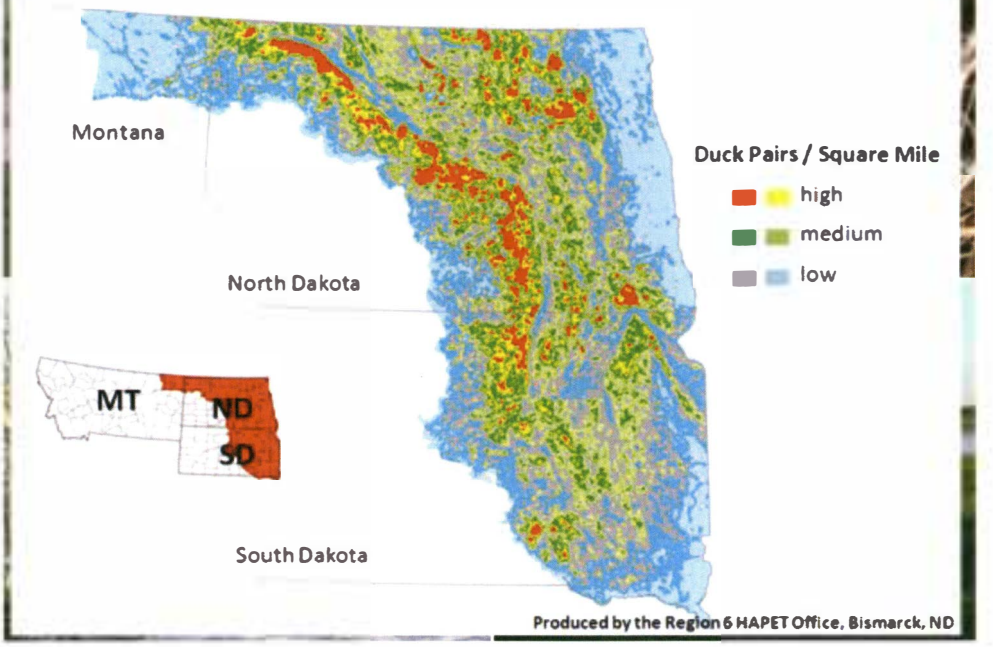
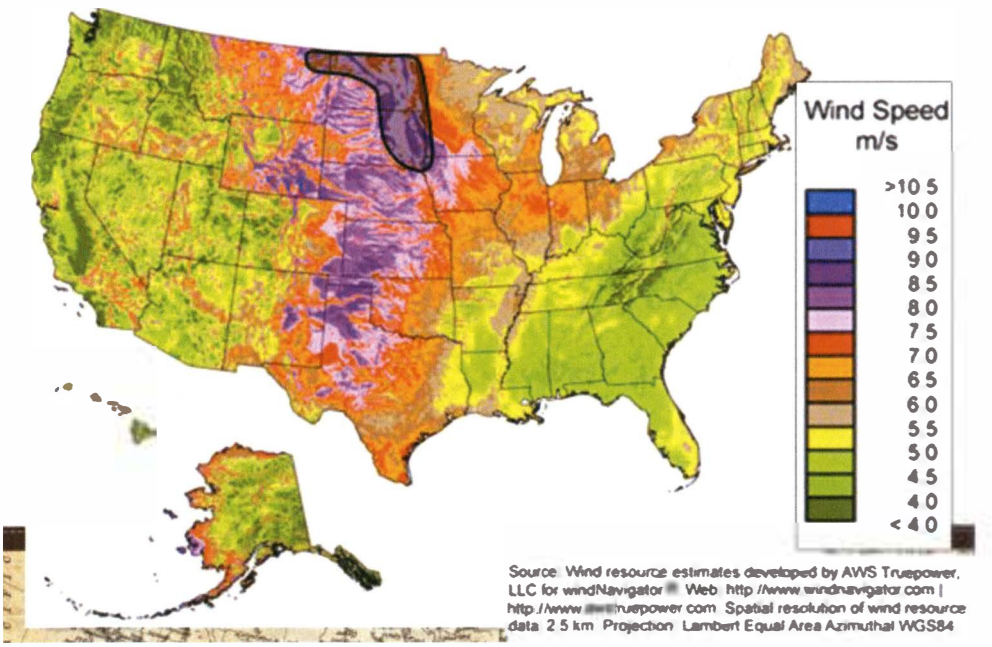
Breeding Duck Pair Accessibility



U.S. - Average Annual Wind Speed at 80 m



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Sixty-sixth
Legislative Assembly
of North Dakota

HOUSE BILL NO. 1383

Introduced by

Representatives Brandenburg, Boe, Headland, Howe, D. Johnson, Schmidt

Senators Dotzenrod, Erbele, Luick, J. Roers, Rust, Wanzek

A BILL for an Act to create and enact ~~two new sections~~a new section to chapter 4.1-01, a new section to chapter 49-22, and a new section to chapter 49-22.1 of the North Dakota Century Code, relating to the creation of an environmental impact mitigation fund ~~and an environmental impact advisory board~~ and to mitigating direct environmental impacts; to amend and reenact subsection 1 of section 4.1-01-18, sections 49-22-05.1, 49-22-09, 49-22.1-03, and 49-22.1-09 of the North Dakota Century Code, relating to the federal environmental law impact review committee, exclusion and avoidance areas and the factors considered by the public service commission when evaluating and designating sites, corridors, and routes; to provide for a report to the budget section; ~~and~~ to provide an appropriation, and to provide a continuing appropriation.

BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF NORTH DAKOTA:

SECTION 1. AMENDMENT. Subsection 1 of section 4.1-01-18 of the North Dakota Century Code is amended and reenacted as follows:

1. The federal environmental law impact review committee consists of:
   a. The commissioner, who shall serve as the chairman;
   b. The governor or the governor's designee;
   c. The majority leader of the house of representatives, or the leader's designee;
   d. The majority leader of the senate, or the leader's designee;
   e. One member of the legislative assembly from the minority party, selected by the chairman of the legislative management;
   f. One individual appointed by the lignite energy council;
   g. One individual appointed by the North Dakota corn growers association;
   h. One individual appointed by the North Dakota grain growers association;
   i. One individual appointed by the North Dakota petroleum council;

j. One individual appointed by the North Dakota soybean growers association; ~~and~~

k. One individual appointed by the North Dakota stockmen's association.

l. One individual appointed by the North Dakota farm bureau;

m. One individual appointed by the North Dakota farmers union;

n. One representative of the utility companies; and

o. One representative from the North Dakota association of rural electric cooperatives.

SECTION 2. A new section to chapter 4.1-01 of the North Dakota Century Code is created and enacted as follows:

Environmental impact mitigation fund - Report to budget section - Continuing appropriation.

1. The moneys accumulated in the environmental impact mitigation fund must be allocated as provided by law and as appropriated by the legislative assembly for distribution by the agriculture commissioner:
   a. To political subdivisions and state agencies to offset impacts of energy development to agricultural land;
   b. To landowners for the mitigation of agricultural land impacted by energy development; and
   c. To landowners of agricultural land who are subject to excessive mitigation of wetlands.
2. Funding may be used only for:
   a. Contracting for consultation with environmental scientists, wildlife biologists, biologists, soil scientists, range scientists, engineers, economists, or scientists in any other field determined to be relevant for services including the evaluation, assessment, and analysis of the physical composition and potential chemical properties of land determined to be impacted by energy development or land to be considered for mitigation;
   b. Reclamation, restoration, or mitigation of land, water resources, or wildlife habitats adversely impacted directly by energy development; and
   c. Offsetting or defraying costs of landowner mitigation in qualifying circumstances as determined by the advisory board.

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3. The commissioner is not subject to chapter 54-44.4 when contracting for services under this chapter.

4. The ~~environmental impact advisory board~~federal environmental law impact review committee shall establish criteria for disbursement of environmental impact funds.

5. The commissioner shall make disbursements based upon the determinations made by the ~~environmental impact advisory board~~federal environmental law impact review committee.

6. For purposes of this section, the federal environmental law impact review committee shall hold at least one regular meeting each year and additional meetings as the chairman determines necessary at a time and place set by the chairman. Upon written request of any four members, the presiding officer shall call a special meeting of the committee.

7. The federal environmental law impact review committee shall make determinations for the disbursement of grants in accordance with subsection 2 and provide those determinations to the commissioner.

8. The federal environmental law impact review committee shall provide a biennial report to the budget section of the legislative management.

9. All moneys in the environmental impact mitigation fund are appropriated to the commissioner on a continuing basis for the purposes set forth under subsection 2.

~~**SECTION 2.** A new section to chapter 4.1-01 of the North Dakota Century Code is created and enacted as follows:~~

~~**Environmental impact advisory board - Members - Report to budget section.**~~

~~1. There is created an environmental impact advisory board consisting of seventeen members. The advisory board consists of:~~

~~a. The commissioner, who shall serve as the presiding officer;~~

~~b. The governor or the governor's designee;~~

~~c. The majority leader of the house of representatives, or the majority leader's designee;~~

~~d. The majority leader of the senate, or the majority leader's designee;~~

~~e. One member of the legislative assembly from the minority party, selected by the chairman of legislative management;~~

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~~f. One individual appointed by the lignite energy council;~~

~~g. One individual appointed by the North Dakota farm bureau;~~

~~h. One individual appointed by the North Dakota corn growers association;~~

~~i. One individual appointed by the North Dakota grain growers association;~~

~~j. One individual appointed by the North Dakota petroleum council;~~

~~k. One individual appointed by the North Dakota soybean growers association;~~

~~l. One individual appointed by the North Dakota stockmen's association;~~

~~m. One individual appointed by the North Dakota farmers union; and~~

~~n. Four members from the energy industry appointed by the governor based upon recommendations of entities representing the energy industry.~~

~~2. The advisory board shall hold at least one regular meeting each year and additional meetings as the chairman determines necessary at a time and place to be fixed by the chairman. Special meetings must be called by the presiding officer upon written request of any four members.~~

~~3. The advisory board shall make determinations for the disbursement of grants in accordance with subsection 2 of section 1 of this Act and provide those determinations to the commissioner.~~

~~4. The term of office of each appointed member of the board is four years and each term of office commences on the first day of July. The initial terms for the advisory board members must be staggered based upon a method determined by the board.~~

~~5. The advisory board shall provide a biennial report to the budget section of the legislative management.~~

SECTION 3. AMENDMENT. Section 49-22-05.1 of the North Dakota Century Code is amended and reenacted as follows:

49-22-05.1. Exclusion and avoidance areas - Criteria.

1. The commission shall develop criteria to be used in identifying exclusion and avoidance areas and to guide the site, corridor, and route suitability evaluation and designation process. The criteria also may include an identification of impacts and policies or practices which may be considered in the evaluation and designation process.

2. The commission may not identify prime farmland, unique farmland, or irrigated land as exclusion or avoidance areas when evaluating and designating geographical areas for site, corridor, or route suitability.

3. Except for electric transmission lines in existence before July 1, 1983, areas within five hundred feet [152.4 meters] of an inhabited rural residence must be designated avoidance areas. This criterion does not apply to a water pipeline. The five hundred foot [152.4 meter] avoidance area criteria for an inhabited rural residence may be waived by the owner of the inhabited rural residence in writing.

~~3.~~4. Areas less than one and one-tenth times the height of the turbine from the property line of a nonparticipating landowner and less than three times the height of the turbine or more from an inhabited rural residence of a nonparticipating landowner, must be excluded in the consideration of a site for a wind energy conversion area, unless a variance is granted. The commission may grant a variance if an authorized representative or agent of the permittee, the nonparticipating landowner, and affected parties with associated wind rights file a written agreement expressing the support of all parties for a variance to reduce the setback requirement in this subsection. A nonparticipating landowner is a landowner that has not signed a wind option or an easement agreement with the permittee of the wind energy conversion facility as defined in chapter 17-04. A local zoning authority may require setback distances greater than those required under this subsection. For purposes of this subsection, "height of the turbine" means the distance from the base of the wind turbine to the turbine blade tip when it is in its highest position.

SECTION 4. AMENDMENT. Section 49-22-09 of the North Dakota Century Code is amended and reenacted as follows:

49-22-09. Factors to be considered in evaluating applications and designation of sites, corridors, and routes.

~~The commission shall be guided by, but is not limited to, the following considerations, where applicable, to~~

1. To aid in the evaluation and designation of sites, corridors, and routes, the commission shall consider:

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~~1.~~ a. Available research and investigations relating to the effects of the location, construction, and operation of the proposed facility on public health and welfare, natural resources, and the environment.

~~2.~~ b. The effects of new electric energy conversion and electric transmission technologies and systems designed to minimize adverse environmental effects.

~~3.~~ c. The potential for beneficial uses of waste energy from a proposed electric energy conversion facility.

~~4.~~ d. Adverse direct ~~and indirect~~ environmental effects that cannot be avoided should the proposed site or route be designated.

~~5.~~ e. Alternatives to the proposed site, corridor, or route which are developed during the hearing process and which minimize adverse effects.

~~6.~~ f. Irreversible and irretrievable commitments of natural resources should the proposed site, corridor, or route be designated.

~~7.~~ g. The direct ~~and indirect~~ economic impacts of the proposed facility.

~~8.~~ h. Existing plans of the state, local government, and private entities for other developments at or in the vicinity of the proposed site, corridor, or route.

~~9.~~ i. The effect of the proposed site or route on existing scenic areas, historic sites and structures, and paleontological or archaeological sites.

~~10.~~ j. The effect of the proposed site or route on areas ~~which are~~ unique because of biological wealth or because ~~they~~the areas are habitats for rare and endangered species.

~~11.~~ k. Problems raised by federal agencies, other state agencies, and local entities.

2. In the evaluation and designation of sites, corridors, and routes, the commission may not ~~consider~~:

a. ~~Adverse indirect environmental effects that cannot be avoided should the proposed site or route be designated; or~~Require payment for mitigation of any assessed adverse indirect impacts to wildlife or habitat,

b. ~~The~~Require payment to a third party nongovernmental organization for any assessed adverse direct or indirect impacts to wildlife or habitat, or

c. Consider indirect economic impacts of the proposed facility.

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SECTION 5. A new section to chapter 49-22 of the North Dakota Century Code is created and enacted as follows:

Mitigating direct environmental impacts.

1. If an applicant elects to provide payment to mitigate any assessed adverse direct environmental, wildlife, or economic impact of a proposed site, corridor, route, or facility, the applicant shall make the payment to the agriculture commissioner.
2. ~~The~~Subject to subsection 3, the agriculture commissioner shall deposit into the environmental impact mitigation fund any moneys paid to mitigate the adverse direct environmental, wildlife, or economic impacts of a proposed site, corridor, route, or facility.
3. At the applicant's request, the agriculture commissioner may provide moneys directly to an organization approved by the federal environmental law impact review committee

SECTION 6. AMENDMENT. Section 49-22.1-03 of the North Dakota Century Code is amended and reenacted as follows:

49-22.1-03. Exclusion and avoidance areas - Criteria.

1. The commission shall develop criteria to be used in identifying exclusion and avoidance areas and to guide the site, corridor, and route suitability evaluation and designation process.
2. The commission may not identify prime farmland, unique farmland, or irrigated land as exclusion or avoidance areas when evaluating and designating geographical areas for site, corridor, or route suitability.
3. Except for oil and gas transmission lines in existence before July 1, 1983, areas within five hundred feet [152.4 meters] of an inhabited rural residence must be designated avoidance areas.
   a. This criterion does not apply to a water pipeline.
   b. The five hundred foot [152.4 meter] avoidance area criteria for an inhabited rural residence may be waived by the owner of the inhabited rural residence in writing.
   c. The criteria also may include an identification of impacts and policies or practices which may be considered in the evaluation and designation process.

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SECTION 7. AMENDMENT. Section 49-22.1-09 of the North Dakota Century Code is amended and reenacted as follows:

49-22.1-09. Factors to be considered in evaluating applications and designation of sites, corridors, and routes.

~~The commission is guided by, but is not limited to, the following considerations, when applicable, to~~

1. To aid in the evaluation and designation of sites, corridors, and routes, the commission shall consider:

~~1.~~ a. Available research and investigations relating to the effects of the location, construction, and operation of the proposed facility on public health and welfare, natural resources, and the environment.

~~2.~~ b. The effects of new gas or liquid energy conversion and gas or liquid transmission technologies and systems designed to minimize adverse environmental effects.

~~3.~~ c. The potential for beneficial uses of waste energy from a proposed gas or liquid energy conversion facility.

~~4.~~ d. Adverse direct ~~and indirect~~ environmental effects that cannot be avoided should the proposed site or route be designated.

~~5.~~ e. Alternatives to the proposed site, corridor, or route that are developed during the hearing process and which minimize adverse effects.

~~6.~~ f. Irreversible and irretrievable commitments of natural resources should the proposed site, corridor, or route be designated.

~~7.~~ g. The direct ~~and indirect~~ economic impacts of the proposed facility.

~~8.~~ h. Existing plans of the state, local government, and private entities for other developments at or in the vicinity of the proposed site, corridor, or route.

~~9.~~ i. The effect of the proposed site or route on existing scenic areas, historic sites and structures, and paleontological or archaeological sites.

~~10.~~ j. The effect of the proposed site or route on areas ~~that are~~ unique because of biological wealth or because the site or route is a habitat for rare and endangered species.

~~11.~~ k. Problems raised by federal agencies, other state agencies, and local entities.

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2. In the evaluation and designation of sites, corridors, and routes, the commission may not ~~consider~~:

   a. ~~Adverse indirect environmental effects that cannot be avoided should the proposed site or route be designated; or~~Require payment for mitigation of any assessed adverse indirect impacts to wildlife or habitat.

   b. ~~The~~Require payment to a third party nongovernmental organization for any assessed adverse direct or indirect impacts to wildlife or habitat; or

   c. Consider indirect economic impacts of the proposed facility.

SECTION 8. A new section to chapter 49-22.1 of the North Dakota Century Code is created and enacted as follows:

Mitigating direct environmental impacts.

1. If an applicant elects to provide payment to mitigate any assessed adverse direct environmental, wildlife, or economic impact of a proposed site, corridor, route, or facility, the applicant shall make the payment to the agriculture commissioner.

2. ~~The~~Subject to subsection 3, the agriculture commissioner shall deposit into the environmental impact mitigation fund any moneys paid to mitigate the adverse direct environmental, wildlife, or economic impacts of a proposed site, corridor, route, or facility.

3. At the applicant's request, the agriculture commissioner may provide moneys directly to an organization approved by the federal environmental law impact review committee.

SECTION 9. APPROPRIATION. There is appropriated out of any moneys in the environmental impact mitigation fund in the state treasury, not otherwise appropriated, the sum of $5,000,000, or so much of the sum as may be necessary, to the agriculture commissioner for the purpose of providing grants to political subdivisions for the mitigation of environmental impacts, for the biennium beginning July 1, 2019, and ending June 30, 2021.

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19.9551.01000 Prepared for Representative Brandenburg

SUMMARY OF TESTIMONY ON MITIGATION

This memorandum provides a summary of mitigation-related information.

The schedule below provides a summary of information provided by the Department of Transportation (Appendix A) to the Government Operations Division of House Appropriations during the 2019 legislative session.

Department of Transportation Wetland Mitigation Expenditures
As of November 5, 2018
(By Fiscal Year)

	2014	2015	2016	2017	2018
Mitigation banks	$989,599	$1,066,394	$263,299	$115,186	$29,450
Permittee-responsible mitigations (Onsite)	1,682,791	858,317	720,775	44,151	214,901
Monitoring	Not available	60,968	69,242	109,561	183,601
Wetland mitigation total	$2,672,390	$1,985,679	$1,053,316	$268,898	$427,952
Department of Transportation construction program	$820,000,000	$615,000,000	$680,000,000	$382,000,000	$357,000,000
Mitigation as a percentage of program	.33%	.32%	.15%	.07%	.12%

The schedule below provides a summary of information provided by the Aeronautics Commission (Appendix B) to the Government Operations Division of House Appropriations during the 2019 legislative session.

Airport Construction Mitigation Expenditures
(By Fiscal Year)

Year	Airport	Description	Federal funds	State Funds	Local Funds	Total
2014	Jamestown Regional	Environmental mitigation	$729,000	$40,500	$40,500	$810,000
2014	Bismarck Municipal	Environmental mitigation	1,818,000	101,000	101,000	2,020,000
2015	Jamestown Regional	Environmental mitigation	110,700	6,150	6,150	123,000
2015	Bismarck Municipal	Environmental mitigation	1,890,000	105,000	105,000	2,100,000
2016	Jamestown Regional	Environmental mitigation	779,400	43,300	43,300	866,000
2016	Williston Basin International	Purchase wetland credits	297,000	16,500	16,500	330,000
2018	Mandan Municipal	Purchase wetland credits	373,500	20,750	20,750	415,000
2018	Dickinson - Theodore Roosevelt Regional	Purchase wetland credits	125,550	6,975	6,975	139,500
Total			$6,123,150	$340,175	$340,175	$6,803,500

The schedule below provides a summary of information provided by the Department of Mineral Resources (Appendix C) to the Government Operations Division of House Appropriations during the 2019 legislative session.

Mitigation Funding
(By Biennium)

	Actual 2013-15	Actual 2015-17	Estimate 2017-19	Estimate 2019-21
Reclamation of well sites placed into service after July 31, 1983	$2,127,131	$2,087,200	$2,562,000	$3,000,000
Reclamation of well sites placed into service on or before July 31, 1983		954,732	3,426,000	600,000
Legacy brine studies		247,604	1,358,000	400,000
Total	$2,127,131	$3,289,536	$7,346,000	$4,000,000

Appendix D contains information from the North Dakota Association of Counties regarding counties' experience with mitigation.

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NDDOT Wetland Mitigation Expenditures as of 11/05/2018	2008	2009	2010	2011	2012
Mitigation Banks	$195,647.90	$67,999.86	$31,609.00	$2,000.00	$40,496.13
Permittee-responsible mitigations (On-Site)	$0.00	$219,649.65	$0.00	$104,322.85	$496,326.63
In-Lieu Fee Programs	$0.00	$0.00	$0.00	$0.00	$0.00
Monitoring	*	*	*	*	*
Wetland Mitigation Grand Total	$195,647.90	$287,649.51	$31,609.00	$106.322.85	$536,822.76
NDDOT Construction Program	$275,000,000.00	$319,000,000.00	$410,000,000.00	$590,000,000.00	$550,000,000.00
Wetland Mitigation % of Program	0.07%	0.09%	0.01%	0.02%	0.10%

NDDOT Wetland Mitigation Expenditures as of 11/05/2018	2013	2014	2015	2016	2017	2018
Mitigation Banks	$139,857.30	$989,599.52	$1,066,394.37	$263,299.79	$115,186.82	$29,450.90
Permittee-responsible mitigations (On-Site)	$611,372.27	$1,682,791.28	$858,316.86	$720,775.20	$44,151.35	$214,900.57
In-Lieu Fee Programs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Monitoring	*	*	$60,967.98	$69,241.85	$109,560.53	$183,601.39
Wetland Mitigation Grand Total	$751,229.57	$2,672,390.80	$1,985,679.21	$1,053,316.84	$268,898.70	$427,952.86
NDDOT Construction Program	$820,000,000.00	$820,000,000.00	$615,000,000.00	$680,000,000.00	$382,000,000.00	$357,000,000.00
Wetland Mitigation % of Program	0.09%	0.33%	0.32%	0.15%	0.07%	0.12%

* Data not available prior to 2015

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APPENDI

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Past Projects (2014-2018)

Year	Airport	Description of work	AIP Federal Funds	State Funds	Local Funds	Total Project Cost
2014	Jamestown Regional	Environmental Mitigation	$ 729,000	$ 40,500	$ 40,500	$ 810,000
2014	Bismarck Municipal	Environmental Mitigation	$ 1,818,000	$ 101,000	$ 101,000	$ 2,020,000
2015	Jamestown Regional	Environmental Mitigation	$ 110,700	$ 6,150	$ 6,150	$ 123,000
2015	Bismarck Municipal	Environmental Mitigation	$ 1,890,000	$ 105,000	$ 105,000	$ 2,100,000
2016	Jamestown Regional	Environmental Mitigation	$ 779,400	$ 43,300	$ 43,300	$ 866,000
2016	Williston Basin International Airport	Purchase Wetland Credits	$ 297,000	$ 16,500	$ 16,500	$ 330,000
2018	Mandan Municipal	Purchase Wetland Credits	$ 373,500	$ 20,750	$ 20,750	$ 415,000
2018	Dickinson - Theodore Roosevelt Regional	Purchase Wetland Credits	$ 125,550	$ 6,975	$ 6,975	$ 139,500
Total			**$ 6,123,150**	**$ 340,175**	**$ 340,175**	**$ 6,803,500**

Future Projects (Estimates)

Year	Airport	Description of work	AIP Federal Funds	State Funds	Local Funds	Total Project Cost
2019	Mohall Municipal	Purchase Wetland Credits	$ 180,000	$ 10,000	$ 10,000	$ 200,000
2020	Bismarck Municipal	Environmental Mitigation	$ 5,000,000	$ 277,778	$ 277,778	$ 5,555,555
2020	Mandan Municipal	Environmental Mitigation	$ 810,000	$ 45,000	$ 45,000	$ 900,000
2021	Bismarck Municipal	Environmental Mitigation	$ 5,000,000	$ 277,778	$ 277,778	$ 5,555,555
2022	Bismarck Municipal	Environmental Mitigation	$ 5,000,000	$ 277,778	$ 277,778	$ 5,555,555
Total			**$ 15,989,999**	**$ 888,333**	**$ 888,333**	**$ 17,766,665**

APPENDIX B

AH1 HB 1383 2/13/2019

ANALYSIS OF THE ABANDONED OIL AND GAS WELL PLUGGING AND SITE RECLAMATION FUND FOR THE 2017-19 AND 2019-21 BIENNIUMS

	2017-19 Biennium		2019-21 Biennium	
Beginning balance		$17,382,475		$21,028,063
Add estimated revenues				
Fees, forfeitures, transfers, and recoveries penalties	$3,211,000[1]		$2,157,000[1]	
Oil and gas tax collections	8,399,588[2,3]		7,000,000[2,3]	
Total estimated revenues		11,610,588		9,157,000
Total available		$28,993,063		$30,185,063
Less estimated expenditures and transfers				
Reclamation of well sites placed into service after July 31, 1983	$2,562,000		$3,000,000	
Reclamation of well sites placed into service on or before July 31, 1983 (2017 HB 1347)	3,426,000		600,000	
Transfer to the environmental quality restoration fund (2015 SB 2190)	400,000		400,000	
Brine pond and soil remediation studies (2017 HB 1347)	1,358,000		400,000	
Pipeline restoration and reclamation oversight program - Agriculture Commissioner (2017 HB 1009; 2019 SB 2009)	200,000[5]		200,000[5]	
Miscellaneous[6]	19,000		25,000	
Total estimated expenditures and transfers		7,965,000		4,625,000
Estimated ending balance		$21,028,063		$25,560,063

[1]Revenues to the fund include:

- Fees collected by the Oil and Gas Division of the Industrial Commission for permits or other services;
- Funds received from the forfeiture of drilling and reclamation bonds;
- Funds received from any federal agency or from donations related to well plugging and site reclamation;
- Transfers or grant awards from the oil and gas impact fund; and
- Funds recovered from the sale of confiscated equipment and oil and from certain civil penalties (2019 SB 2123 clarifies the types of equipment that can be confiscated).

[2]In House Bill No. 1032, the 2015 Legislative Assembly increased the oil and gas tax allocations to the fund by $2.5 million per fiscal year, from $5 million to $7.5 million, and increased the allocation limit from an amount that would bring the balance of the fund over $75 million to an amount that would bring the balance of the fund over $100 million. These changes were contingent upon the "large" trigger not being in effect at any time during the first 6 months of the 2015-17 biennium. The contingency was met, which allows the allocation limit and the fund balance limit to increase. In Senate Bill No. 2013, the 2017 Legislative Assembly decreased the oil and gas tax allocations to the fund by $3.5 million per fiscal year, from $7.5 million to $4 million; however, the decrease is effective only for the 2017-19 biennium. DMR recommends $3.5 million per fiscal year for the 2019-2021 biennium.

[3]Estimated 2017-19 biennium revenues - The estimated allocations for the 2017-19 biennium reflect actual allocations through December 2018 and estimated allocations for the remainder of the biennium based on the 2017 legislative revenue forecast.

[4]For the 2017-19 biennium through December 31, 2018, the State Department of Health has not requested any transfers. North Dakota Century Code Section 38-08-04.5 allows for transfers from the abandoned oil and gas well plugging and site reclamation fund with the requirement that any transfers into the

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2/13/2019

MITIGATION FUNDING

	Biennium Totals		Biennium Estimates	
	2013-2015	2015-2017	2017-2019	2019-2021
Reclamation of well sites placed into service after July 31, 1983	$2,127,131	$2,087,200	$2,562,000	$3,000,000
Reclamation of well sites placed into service on or before July 31, 1983		$954,732	$3,426,000	$600,000
Legacy Brine Studies		$247,604	$1,358,000	$400,000
Total	**$2,127,131**	**$3,289,536**	**$7,346,000**	**$4,000,000**

P.S

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ENGINEERING AND ENVIRONMENTAL REVIEWS

1) The project crosses a mapped landslide.

2) The project is within an area containing mapped landslides.

3) The shallow geology problematic for construction activities.

4) A high water table may create construction problems.

5) The suitability of the surface geology for waste disposal.

6) The potential for underground mines in the area.

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2/13/2019

ENGINEERING AND ENVIRONMENTAL REVIEWS

2018 REVIEWS (203 total)

49 Transportation (37 roads, 12 bridges)
34 Municipal and Industrial Wastewater Impoundments
29 Wind Farms
28 Pipelines
17 Water Infrastructure
9 Coal Mines (mining permits and reclamation)
9 Gas Processing Plants
9 Transmission Lines
7 Garrison Diversion
7 Urban Planning
2 Military
1 Solid Waste
1 Solar (near Casselton)
1 Dam (Heart Butte)

environmental quality restoration fund will be returned by the State Department of Health to the abandoned oil and gas well plugging and site reclamation fund.

[5]The 2017 Legislative Assembly appropriated $200,000 in House Bill No 1009. As introduced, Senate Bill No. 2009 (2019) also appropriates $200,000. As of December 31, 2018. the Department of Agriculture requested and received $39,230 of the $200,000 appropriation for the 2017-19 biennium.

[6]Miscellaneous expenditures include credit card merchant fees and audit fees.

FUND HISTORY

The fund was established in 1983 under Section 38-08-04.5. The purpose of the fund is to defray the costs of plugging or replugging oil wells, the reclamation of well sites, and all other related activities for wells or pipelines. The money in the fund may be spent, pursuant to a continuing appropriation, for contracting for the plugging of abandoned wells; contracting for the reclamation of abandoned drilling and production sites, saltwater disposal pits, drilling fluid pits, and access roads; paying mineral owners their royalty share of confiscated oil; and paying any contract-related expenses. The Industrial Commission is to report to the Budget Section each biennium on the expenditures of the fund and the fund balance.

The 2015 Legislative Assembly, in House Bill No. 1032, increased the oil and gas tax allocation to the fund by $2.5 million per fiscal year, from $5 million to $7.5 million, and increased the allocation limit from an amount that would bring the balance of the fund over $75 million to an amount that would bring the balance of the fund over $100 million. In Senate Bill No. 2013, the 2017 Legislative Assembly decreased the oil and gas tax allocations to the fund by $3.5 million per fiscal year, from $7.5 million to $4 million; however, the decrease is effective only for the 2017-19 biennium.

Att 1 HB 1383 2/13/2019

Kadrmas, Chris J.

From: Terry O. Traynor <terry.traynor@ndaco.org>
Sent: Sunday, January 27, 2019 4:34 PM
To: Kadrmas, Chris J.
Cc: Brandenburg, Michael D.
Subject: Mitigation in Road Construction

***** CAUTION: This email originated from an outside source. Do not click links or open attachments unless you know they are safe. *****

Chris,
I contacted the four big counties about Rep. Brandenberg's questions concerning mitigation on road projects. I contacted these four because they all have staff engineers and they all have active construction programs.

All four have a number of examples of projects requiring mitigation. As they stated, virtually every project that crosses or borders a wetland may result in the dedication of mitigation acres. Obviously this becomes more common outside the Red River Valley and outside the drier Southwest.

Most, in recent years, they have used three methods to address the replacement of wetland acres disturbed on a temporary or permanent basis by construction.

Purchase and dedication of acres through payment to a conservation organization such as Ducks Unlimited.

3. Cooperative agreement with USFW to restore a previously drained wetland in their control, or

2. Creation of replacement acres within the road project right-of-way or in other county owned areas.

Several indicated that purchasing "wetland credits" from DU is likely more expensive, but the documentation and long term monitoring of a "replacement" is much more complicated.

The following is likely a good description of the problem and costs from one of the counties.

"The CORPS is claiming jurisdiction over areas they would not have claimed 10 years ago and definitely would not have claimed 15 years ago. If we are doing construction in an area where the CORPS has stated it could be an impact area, we would need to prove to them that is not their jurisdictional waters. Our choice is to either spend a lot of time and money fighting them, or cave and agree to mitigate all wetlands even if they were artificial. Currently we can either mitigate on site and pay an environmental company to monitor the wetland for the next 5 years or write a check to Ducks Unlimited and buy wetland credits. It costs around $50,000/Acre to buy wetland credits from Ducks Unlimited. The cost to construct on sight has also grown due to the additional documentation requirement from the CORPS; it costs around $15,000 to $20,000 to build the onsite wetlands (per acre) and an additional $30,000 to $40,000 to document over the 5 to 7 years.

When we impact wetlands on a USFW easements, we typically end up working with the local USFW refuge and try to find a drain area and restore the wetland. All the cost of buying additional easements and construction cost are the ties. One downside is, if we impact 0.5 acres and restore a 2 acre wetlands we do not get use it to mitigate a future ject.

Costs consist of Wetland Studies, Wetland Mitigation, and Wetland Monitoring. So to put a cost on mitigation I would estimate we average around $100,000 (maybe more) on mitigations with the exception of s proposed project for 2018.

p.9

This project is still on hold with the CORPS of engineers, as it would be around $400,000 to mitigate a $800,000 project within our existing ditch right of way."

Terry Traynor
701-328-7321
1661 Capitol Way
Bismarck, ND 58501

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3.7.19

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Mitigation in Road Construction

Terry O. Traynor <terry.traynor@ndaco.org>

Sun 1/27/2019 4:34 PM

To:Kadrmas, Chris J. <cjkadrmas@nd.gov>;

Cc:Brandenburg, Michael D. <mbrandenburg@nd.gov>;

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future project.

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Terry Traynor
701-328-7321
1661 Capitol Way
Bismarck, ND 58501

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NDDOT Wetland Mitigation Expenditures as of 11/05/2018	2008	2009	2010	2011	2012
Mitigation Banks	$195,647.90	$67,999.86	$31,609.00	$2,000.00	$40,496.13
Permittee-responsible mitigations (On-Site)	$0.00	$219,649.65	$0.00	$104,322.85	$496,326.63
In-Lieu Fee Programs	$0.00	$0.00	$0.00	$0.00	$0.00
Monitoring	*	*	*	*	*
Wetland Mitigation Grand Total	**$195,647.90**	**$287,649.51**	**$31,609.00**	**$106.322.85**	**$536,822.76**
NDDOT Construction Program	$275,000,000.00	$319,000,000.00	$410,000,000.00	$590,000,000.00	$550,000,000.00
Wetland Mitigation % of Program	**0.07%**	**0.09%**	**0.01%**	**0.02%**	**0.10%**

NDDOT Wetland Mitigation Expenditures as of 11/05/2018	2013	2014	2015	2016	2017	2018
Mitigation Banks	$139,857.30	$989,599.52	$1,066,394.37	$263,299.79	$115,186.82	$29,450.90
Permittee-responsible mitigations (On-Site)	$611,372.27	$1,682,791.28	$858,316.86	$720,775.20	$44,151.35	$214,900.57
In-Lieu Fee Programs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Monitoring	*	*	$60,967.98	$69,241.85	$109,560.53	$183,601.39
Wetland Mitigation Grand Total	**$751,229.57**	**$2,672,390.80**	**$1,985,679.21**	**$1,053,316.84**	**$268,898.70**	**$427,952.86**
NDDOT Construction Program	$820,000,000.00	$820,000,000.00	$615,000,000.00	$680,000,000.00	$382,000,000.00	$357,000,000.00
Wetland Mitigation % of Program	**0.09%**	**0.33%**	**0.32%**	**0.15%**	**0.07%**	**0.12%**

* Data not available prior to 2015

FW: Wetland Mitigation Expenditures Updated 11/5/18

Fode, Bob A.

Tue 11/6/2018 2:46 PM

To Brandenburg, Michael D. <mbrandenburg@nd.gov>;

1 attachment

Wetland Mitigation Expenditures 11-5-18.pdf;

Mr. Brandenburg,

It took some time but here is what we came up with for the Department's mitigation program. Let me know if you have any questions. Thanks enjoy your day.

Robert Fode
North Dakota Department of Transportation
608 East Boulevard Ave
Bismarck, North Dakota 58505-0700
bfode@nd.gov
701-328-1937

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3.8.19
#3
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SUMMARY OF TESTIMONY ON MITIGATION

This memorandum provides a summary of mitigation-related information.

The schedule below provides a summary of information provided by the Department of Transportation (Appendix A) to the Government Operations Division of House Appropriations during the 2019 legislative session.

Department of Transportation Wetland Mitigation Expenditures
As of November 5, 2018
(By Fiscal Year)

	2014	2015	2016	2017	2018
Mitigation banks	$989,599	$1,066,394	$263,299	$115,186	$29,450
Permittee-responsible mitigations (Onsite)	1,682,791	858,317	720,775	44,151	214,901
Monitoring	Not available	60,968	69,242	109,561	183,601
Wetland mitigation total	$2,672,390	$1,985,679	$1,053,316	$268,898	$427,952
Department of Transportation construction program	$820,000,000	$615,000,000	$680,000,000	$382,000,000	$357,000,000
Mitigation as a percentage of program	.33%	.32%	.15%	.07%	.12%

The schedule below provides a summary of information provided by the Aeronautics Commission (Appendix B) to the Government Operations Division of House Appropriations during the 2019 legislative session.

Airport Construction Mitigation Expenditures
(By Fiscal Year)

Year	Airport	Description	Federal funds	State Funds	Local Funds	Total
2014	Jamestown Regional	Environmental mitigation	$729,000	$40,500	$40,500	$810,000
2014	Bismarck Municipal	Environmental mitigation	1,818,000	101,000	101,000	2,020,000
2015	Jamestown Regional	Environmental mitigation	110,700	6,150	6,150	123,000
2015	Bismarck Municipal	Environmental mitigation	1,890,000	105,000	105,000	2,100,000
2016	Jamestown Regional	Environmental mitigation	779,400	43,300	43,300	866,000
2016	Williston Basin International	Purchase wetland credits	297,000	16,500	16,500	330,000
2018	Mandan Municipal	Purchase wetland credits	373,500	20,750	20,750	415,000
2018	Dickinson - Theodore Roosevelt Regional	Purchase wetland credits	125,550	6,975	6,975	139,500
Total			$6,123,150	$340,175	$340,175	$6,803,500

The schedule below provides a summary of information provided by the Department of Mineral Resources (Appendix C) to the Government Operations Division of House Appropriations during the 2019 legislative session.

Mitigation Funding
(By Biennium)

	Actual 2013-15	Actual 2015-17	Estimate 2017-19	Estimate 2019-21
Reclamation of well sites placed into service after July 31, 1983	$2,127,131	$2,087,200	$2,562,000	$3,000,000
Reclamation of well sites placed into service on or before July 31, 1983		954,732	3,426,000	600,000
Legacy brine studies		247,604	1,358,000	400,000
Total	$2,127,131	$3,289,536	$7,346,000	$4,000,000

Appendix D contains information from the North Dakota Association of Counties regarding counties' experience with mitigation.

ATTACH:4

HOUSE BILL 1383
March 7, 2019
Senate Energy and Natural Resources Committee
Chair Jessica Unruh

Chair Unruh and Committee Members I am Cindy Schreiber-Beck representing District 25 in the House of Representatives. I am a land owner, serve on the ND Aeronautics Commission and am a former manager of the Wahpeton Airport. Thus I am somewhat familiar with the mitigation process involving wetlands.

From a state level, this legislation address the excessive costs private and public entities bear to mitigate environmental impacts and effectively eliminates requiring indirect impacts. Although this bill appears lengthly it is relatively simple and affects the following sections of code: Agriculture Commissioner, Energy Conversion and Transmission Facility Siting Act and Energy Conversion and Transmission Facilities.

As a high level overview, this bill recognizes the landowner in the process and accomplishes the following:

- Adds membership to the existing federal environmental law impact review committee with the committee duties spelled out
- Creates an environmental impact mitigation fund — a special fund, funded though payments through directed mitigation with the use of the funds contained in the bill
- Directs and limits the duties of the PSC in siting
- DOES NOT eliminate a company voluntarily paying indirect impacts

Please support HB1383 ——- Now if we could accomplish the same at the federal level…….
Thank you for your attention.

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COMMISSIONER
DOUG GOEHRING

ndda@nd.gov
www.nd.gov/ndda

Testimony of Doug Goehring, Agriculture Commissioner
North Dakota Department of Agriculture
House Bill 1383
Senate Energy and Natural Resources Committee
Fort Lincoln Room
March 7, 2019

Chair Unruh and members of the Senate Energy and Natural Resource Committee, I am Agriculture Commissioner Doug Goehring. Thank you for the opportunity to appear before the committee. I am here today in support of House Bill 1383.

I am in support of this bill because it brings to light the issue of indirect mitigation injustices that are occurring, and we believe this is a step in the right direction. This bill addresses this issue and allows the landowners that are impacted by mitigation, to have access to resources when mitigation is being considered on their land. For far too long, the landowners have been absent from the discussion about mitigation and are being used like pawns. Unfortunately, they are the ones most egregiously impacted by decisions from a state agency or outside groups, due to exclusionary areas. With this bill, landowners will have the ability to apply for mitigation funds to potentially assist them with hiring experts to help guide the decisions made on their lands regarding mitigation.

By placing this responsibility under the purview of the Federal Environmental Law Impact Review Committee, we will be utilizing an existing committee that is broad based and represents agriculture, energy and landowners.

Chair Unruh and committee members, I ask for your support of HB 1383 and would be happy to take any questions.

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WIND
Wind Industry of North Dakota

Senate Energy and Natural Resources Committee

March 7, 2019

Support HB 1383

Chairman Unruh and Members of the Committee,

For the record my name is Mike Krumwiede, and I'm here today representing Wind Industry of ND, or WIND. We are a coalition of industry members and supporters formed in 2018 that advocates for the continued support of wind as one of North Dakota's valuable energy resources. Our current coalition includes:

- American Wind Energy Association (AWEA)
- Apex Clean Energy
- Capital Power
- EDF Renewable Energy
- Enel Green Power North America Inc.
- Invenergy
- NextEra Energy Resources
- Tenaska
- Tradewind
- Wanzek Construction, Inc.

These members came together because we believe wind is an abundant asset in our state which should be harnessed for the continued benefit of our local communities and residents. North Dakota currently ranks 5th in share of electricity generated from wind. Wind farms now reside in 27 counties and those 29 commercial wind farms in North Dakota generated 3000mw of power in 2016. The Wind industry currently accounts for three to four thousand permanent direct, indirect, and manufacturing jobs in ND with a total business activity of $174 million in 2016. In that same year the wind industry paid property taxes of $7.7 million and $14.4 million in lease payments to North Dakota Landowners. The result of all this activity is that Wind now comprises approximately 27% of the energy mix used by utilities in North Dakota.

WIND supports HB 1383 because the science of indirect environmental impacts is inconclusive and, accordingly, the PSC should not require mitigation of those impacts. We're primarily supportive of any bill that maximizes the flexibility of companies to mitigate environmental and wildlife impacts as the company sees fit.

WIND understands that mitigation payments of direct impacts are something that will have to be dealt with in developing new wind projects. WIND is in favor of the language in this bill as it pertains to payments for mitigation assessed on adverse direct environmental impacts.

For this reason, we respectfully request a Do Pass recommendation on HB 1383. Thank you for your time.

North Dakota Grain Growers Association

You Raise. We Represent. www.ndgga.com

North Dakota Grain Growers Association Testimony on HB 1383 Senate Energy and Natural Resources Committee March 7, 2019

Chairwoman Unruh, members of the Senate Energy and Natural Resources Committee, for the record my name is Tom Bernhardt; I am a diversified family farmer from Linton, North Dakota and I am also Secretary/Treasurer of the North Dakota Grain Growers Association (NDGGA). I appear in both capacities today in support of HB 1383.

Chairwoman Unruh, members of the Senate Energy and Natural Resources Committee, I am involved in a wind farm project in my home area of Linton. I know the heartache, the anguish, and the anger associated with the results of the North Dakota Game and Fish Department assessment of indirect mitigation impacts in energy development and what that has done to my farm and to my neighbors.

First, I think everyone agrees there are direct impacts that should be mitigated in energy development. Landowners, energy companies and environmental interests can all come together to agree on this. It's when the North Dakota Game and Fish Department started accessing arbitrary indirect mitigation impacts, which negatively impacted my farm, my family and my neighbors, is where the trouble began. The distress is still felt in Emmons and Logan Counties today.

Here's the scenario; the wind energy company Nextera decided to site a wind farm in my home area. I and my neighbors worked with Nextera to site wind towers in areas that made sense both for the farms involved as well as for NextEra. That is how the system should work.

Then the North Dakota Game and Fish Department stepped in and started throwing around costly arbitrary indirect mitigation impacts. This held me, my neighbors and NextEra hostage because if the arbitrary indirect impact costs were not met the wind farm wouldn't be sited in our area. In fact, North Dakota was endangered of losing the entire

Phone: 701-282-9361 | Fax: 701-239-7280 | 1002 Main Ave W. #3 West Fargo, N.D. 58078

project to another state all because of North Dakota Game and Fish Department and ultimately the North Dakota PSC.

To address this situation NextEra either had two choices, pay off North Dakota Game and Fish Department's indirect impact fees and siting requirements or move elsewhere. So the brewing of trouble intensified. Impacts accessed by North Dakota Game and Fish Department and their resulting cost necessitated that NextEra relocate the landowner/Nextera agreed upon sites. Towers were moved from pastures to productive farmland; neighbors lost the economic opportunity to site towers on their land because the arbitrary impacts and the resulting costs stole their opportunities away. When the dust settled the wind farm went forward, but at a tremendous cost, both monetary and emotional, to my community.

Why did this happen you ask? Two reasons, money and power. Not the power generated by wind towers but power generated by regulatory over-reach from North Dakota's own state agencies. Then there's the money; North Dakota Game and Fish Department doesn't have the expertise nor the personnel to address energy impacts but they sure have "friends" who do. Friends who "graciously" would take NextEra's over $500,000 for "indirect mitigation" purposes. If the over $500,000 was paid, the permit would be granted.

This is what happened to me, my family, my farm, my neighbors. Don't let it happen again! Please pass HB 1383!!

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North Dakota Grain Growers Association

You Raise. We Represent. www.ndgga.com

North Dakota Grain Growers Association Testimony on HB 1383 Senate Energy and Natural Resources Committee March 7, 2019

Chairwoman Unruh, members of the Senate Energy and Natural Resources Committee, for the record my name is Dennis Haugen; I am a diversified family farmer and businessman from Hannaford, North Dakota, and I am also 1st Vice President of the North Dakota Grain Growers Association (NDGGA). Through our contracts with the North Dakota Wheat Commission and the North Dakota Barley Council NDGGA engages in domestic policy issues on the state and federal levels on behalf of North Dakota wheat and barley farmers. I appear before you today in all 3 capacities to support HB 1383.

Chairwoman Unruh, members of the Senate Energy and Natural Resources Committee, HB 1383 is much needed legislation. I farm among the wind towers at the Ashtabula Wind Farm in Barnes, Griggs, and Steele Counties in North Dakota. I can tell you that in the 10 years I have farmed around those wind towers everything is fine; the wildlife is fine, the landowners are fine, the weeds are fine, the access roads are fine and the wind energy people are fine.

All of this adverse environmental impact stuff that you hear of is just not reality; in 10 years farming around those towers I've not seen even one bird kill much less any other impacts. That's especially why eliminating indirect mitigation in this bill is so important. The indirect impact assessments made up by the North Dakota Game and Fish Department and assessed by the North Dakota Public Service Commission are nothing more than a money grab for environmental interests and have nothing to do with mitigating the surroundings in the real world.

Also using mitigation excuses as siting criteria is just plain wrong. The Ashtabula Wind Farm is located on both pasture land as well as crop land; the deer, ducks, coyotes, badgers, geese and skunks continue to inhabit the area without hesitation. Wind farm siting should be based on common-sense locations in cooperation with landowners.

Chairwoman Unruh, members of the Senate Energy and Natural Resources Committee, HB 1383 is much needed legislation that greatly helps to solve the mitigation issues surrounding energy development. I and the North Dakota Grain Growers Association respectfully request a Do Pass recommendation from the Senate Energy and Natural Resources Committee and a favorable vote in the Senate.

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Testimony of Paul Thomas
North Dakota Corn Growers Association
In Support of HB 1383
March 7, 2019

Chair Unruh and members of the Senate Energy and Natural Resources Committee.

My name is Paul Thomas. I am the Vice - President of the North Dakota Corn Growers Association and a farmer from Velva, ND.

I appreciate the opportunity today to voice the opinions of the North Dakota Corn Growers and my support of House Bill 1383.

HB 1383 directs mitigation funds to be used to reclaim and enhance habitat and wetlands when energy development affects those resources on private property. The Environmental Impact Mitigation Fund and the proposed board is the correct way for North Dakota private property owners to have options when a direct environmental impact occurs on their property.

Mitigation, reclamation and restoration of impacted property can be a very costly process. There are many benefits to both property owners and for the environment when mitigation happens correctly. Property that has been mitigated may have more federal policy restrictions than property that has not been mitigated. As property owners we are willing to have these restrictions with the ability for us to choose where we would like to have the projects that might replace energy development impacted property.

The Corn Growers believe that the creation of the federal environmental law impact review committee will provide the opportunity for conservation groups, sportsmen and us as property owners to create better quality environmentally sensitive areas.

Farmers and ranchers in North Dakota are very concerned about what happens with our property. We take great pride in being the caretakers of our property for the next generation.

We feel that HB 1383 will help property owners have a seat at the table in this important discussion.

Thank you for allowing me to share my support of HB 1383 with you today. I will be happy to try and answer and questions you may have for me.

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House Bill 1383
Testimony in support
Energy and Natural Resources, Chair Unruh
Carlee McLeod, president, USND

Chairman Unruh, members of the committee, I am Carlee McLeod, president of the Utility Shareholders of North Dakota. I come before you today to testify in support to this bill on behalf of my members, ALLETE, Montana-Dakota Utilities, Otter Tail Power Company, and Xcel Energy. We believe this bill is necessary, along with SB 2261, to provide certainty for our companies and customers.

As utilities, providing low-cost, reliable energy is our utmost priority, but we also feel a deep responsibility to be stewards of the land, water, and air in the areas in which we serve. Our actions back up that responsibility. Not only do we meet our government requirements to preserve and protect the environment, we go beyond those requirements. A recent example of this can be found in the Xcel Energy pollinator project near Minot. We support maintaining a healthy and vibrant environment.

We appreciate that the bill limits the state from mandating mitigation payments.
We also believe this bill allows for the flexibility to provide our own mitigation or to provide payment to the state. As utilities, we prefer to mitigate our own environmental impacts. If we are affecting the environment, we want to be the ones to address that impact. This bill provides that an applicant may use the state program if it elects, and if it does not elect, it may mitigate on its own. We have confirmed with both the prime sponsor and the Agricultural Commission regarding the voluntary nature of the state payment option, and we are comfortable that this bill, combined with other provisions of state law and the ND Constitution support our interpretation and their assurances. This bill meets our concerns, and we believe it, along with SB 2261, must pass.

USND and its member companies ask for favorable consideration of this bill.

House Bill 1383

Presented by: **Julie Fedorchak, Commissioner**
Public Service Commission

Before: **Senate Energy and Natural Resources Committee**
The Honorable Jessica Unruh, Chairman

Date: **March 7, 2019**

TESTIMONY

Madam Chairman and committee members, I am Commissioner Julie Fedorchak with the Public Service Commission and I appear before you to testify on behalf of the Commission in opposition to HB 1383.

In 1975, the legislature tasked the Public Service Commission with implementing the Siting Act to ensure that certain energy infrastructure projects produce "minimal adverse effects on the environment and the welfare of the citizens of this state." That goal – minimal adverse effects on the environment and the welfare of the citizens– is at the heart of every siting permit application. In seeking that balance, the Commission doesn't weigh one side more than the other. We look at the public interest as a whole. The public has an interest in reliable energy, in the jobs and economic impact of the energy industry, in a fair and predictable regulatory process that allows for business development, in preserving the environment, and in maintaining our clean, peaceful landscape. The companies who apply, and the commission in making our decision try to balance all of these factors and more, and the siting law currently provides the flexibility to do so.

Since the enactment of the Siting Act, the growth of energy conversion and transmission infrastructure has been truly breathtaking. Just to provide some context of the volume and size of investments, I have attached a list of sited infrastructure from the past 15 years. Throughout the past four decades, the Siting Act has been an effective framework for the Commission to accomplish the task requested and has provided the flexibility to accommodate the growth of infrastructure while minimizing negative impacts on the environment and the people living in and around this infrastructure.

It is because of the Siting Act's success and through the Commission's experience that the Commission views these substantive changes proposed by 1383 with skepticism. We understand the concerns related to direct and indirect offset payments and to some degree agree with the spirit of this legislation. However, we believe that the changes are misplaced, extend beyond the narrow scope that may be appropriate to address the outstanding concerns, create ambiguity and difficulty in application, and may result in unintended consequences.

Environmental Impact Mitigation Fund, Federal Environmental Law Impact Review Committee, and Farmland Exclusion Areas

The Commission has no position on Section 1 and 2 regarding the federal environmental law impact review committee and environmental impact mitigation fund.

In section 3, the Commission is also not opposed to the prohibition from identifying prime farmland, unique farmland, or irrigated land as exclusion or avoidance areas in the siting process. We recently started a rulemaking process

to reevaluate the designation of prime and unique farmland, as well as irrigated land, as exclusion areas. The rulemaking proposes to remove these areas from their status as exclusion areas. The hearing on that proposed rule change is set for March 13th (next Wednesday).

Commission Factors for Consideration and Environmental Impact Payments

Our concerns emerge in Sections 4-8. First, we oppose removing "indirect environmental effects" from factors to be considered in evaluating applications and designation of sites, corridors, and routes. Second, we are concerned about the definition of the term "payment" used in the language that states the Commission may not require payment of any assessed adverse indirect environmental effects or impacts. And third, we are concerned about memorializing in law that the commission has the authority to require mitigation payments for *direct* environmental impacts. I will elaborate briefly on our concerns

Loss of Flexibility and Discretion

The removal of "indirect environmental effects" from factors to be considered erodes the Commission's flexibility and discretion. During public hearings, testimony brings to light issues that were not foreseeable to the Commission or the applicant throughout the planning phase. Many landowner, township/local subdivisions, and stakeholder issues do not fit neatly within a box. The current law provides broad discretion and flexibility to consider issues presented and to request reasoned and reasonable accommodations. This loss of discretion erodes the Commission's ability to act in the public interest.

Creates Ambiguity

Furthermore, HB 1383 creates ambiguity in the Siting Act's application. In the bill, the Commission retains the authority to consider direct environmental impacts, but not indirect environmental impacts. This begs the question, "Where does an indirect environmental impact end and a direct impact begin?" Is the change of water flow onto an adjacent landowner's property a direct or indirect environmental impact? Are flashing lights and the sound of pumps direct or indirect environmental impacts to a nearby business? Is the change of air quality, fugitive dust during construction, or effects of noxious weeds on nearby agriculture a direct or indirect environmental impact? What about impacts to local roads? Policy makers who crafted the current language likely did so intentionally, recognizing the challenge of distinguishing between direct and indirect impacts. This bill creates a big, broad gray area that will be difficult to apply and may result in more litigation over siting permits.

Assessing Direct Payments

The Commission has not ordered a company to provide offset payments for direct or indirect impacts and currently does not consider it within its authority to do so. This legislation says the Commission may consider requiring an applicant to provide offset payments for direct environmental impacts. This is an authority that the Commission is not interested in having. We see significant challenges in differentiating between direct and indirect environmental impacts, and attempting to assess an appropriate value to a direct environmental impact would stretch our agency's expertise.

Clarification of the term "Payment"

Another concern relates to the term "payment" as it relates to the prohibition of payments for indirect impacts. Narrowing the term to a specific application would be worthwhile to differentiate it from a payment through a fine, penalty, fee, or payment to a contractor for construction compliance. For example, using siting fees to procure construction inspectors to ensure compliance with the certificate may be construed as requiring payment to a third-party nongovernmental organization for mitigation. If this legislation proceeds, we ask that the legislature qualify this term directly to its application.

The Commission has powers given to it by the legislature. I want to be clear that we will work to implement any task or responsibility that the legislature asks the Commission to undertake. However, as written, this bill has serious shortfalls and may be difficult in application.

Madam Chairman, this concludes my testimony. Thank you for your consideration. I will be happy to answer any questions.

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North Dakota Public Service Commission Approved Siting Projects

2002-Current

Electric Transmission:

Company	Type	Cost Investment
• Emmons-Logan Wind	230kV	$20,000,000
• Northern States Power	230 kV	$50,500,000
• Oliver Wind III	230 kV	$11,400,000
• Brady Wind	230 kV	$20,500,000
• Basin Electric Coop.	345 kV	$135,000,000
• Antelope Hills Wind	345 kV	$9,000,000
• Allete Inc.	250 kV Line Reroute	$500,000
• MDU/Otter Tail Power	345 kV	$50,000,000
• Allete Inc.	250 kV Line Reroute	$1,800,000
• Great River Energy	230 kV Line Reroute	$2,891,000
• Basin Electric Coop.	345 kV	$300,000,000
• Basin Electric Coop.	345 kV	$3,000,000
• Allete Inc.	230 kV	$10,000,000
• Montana-Dakota Utilities	230 kV	$14,500,000
• Oliver Wind III	230 kV	$3,500,000
• Otter Tail Power	230 kV	$260,000
• Minnkota Power	345 kV	$310,000,000
• Allete Inc.	230 kV	$13,000,000
• M-Power LLC	230 kV	$4,550,000
• Ashtabula Wind	230 kV	$3,000,000
• Minnkota Power	230 kV	$29,000,000
• Otter Tail Power	230 kV	$260,000
• Northern States Power	345 kV	$390,000,000
• Basin Electric Coop.	230 kV	$25,500,000
• Basin Electric Coop.	230 kV	$33,000,000
• Tatanka Wind Power	230 kV	$7,300,000
• FPL Energy Oliver Wind	230 kV	$2,000,000
• PPM Energy	230 kV	$2,750,000
• FPL Energy	230 kV	$5,000,000

Total Investment = $1,458,211,000

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Generating Stations:

Company	Type	Cost Investment
• Basin Electric Coop.	45 MW Gas-Fired Station	$99,000,000
• Basin Electric Coop.	111 MW Gas-Fired Station	$161,200,000
• Basin Electric Coop.	90 MW Gas-Fired Station	$115,000,000
• Basin Electric Coop.	45 MW Gas-Fired Station	$102,000,000
• Montana-Dakota Utilities	88 MW Gas-Fired Station	$56,600,000

Total Investment = $533,800,000

Oil and Gas Refinement:

Company	Type	Cost Investment
• Hiland Partners	Gas Processing Plant Expansion	$234,000,000
• ONEOK Rockies Midstream	Gas Processing Plant Expansion	$250,000,000
• Arrow Field Services	Gas Processing Plant	$136,000,000
• Oasis Midstream	Gas Processing Plant Expansion	$150,000,000
• Targa Badlands LLC	Gas Processing Plant Expansion	$140,000,000
• ONEOK Rockies Midstream	Gas Processing Plant	$642,000,000
• ONEOK Rockies Midstream	Gas Processing Plant	$280,000,000
• Tioga Gas Plant	Gas Processing Plant Expansion	$325,000,000
• Whiting Oil & Gas	Gas Processing Plant Expansion	$3,000,000
• ONEOK Rockies Midstream	Gas Processing Plant	$160,000,000
• Bear Paw Energy	Gas Processing Plants	$273,000,000
• Bear Paw Energy	Gas Processing Plant	$175,000,000
• Hess Corporation	Gas Processing Plant Expansion	$500,000,000
• Bear Paw Energy	Gas Processing Plant	$142,000,000

Total Investment = $3,410,000,000

Pipelines (2005 to present):

Company	Type	Cost Investment
Enbridge Pipelines	Pump Station Upgrades	$8,900,000
Andeavor Field Services	8” and 6” NGL Pipelines	$46,000,000
Hess North Dakota	Gathering System Conversion	$107,000,000
ONEOK Rockies Midstream	12” NGL Pipeline Conversion	$1,800,000
Cenex Pipeline	10” Refined Fuels Pipeline	$115,000,000
NuStar Pipeline Operating	Mapleton Terminal	$8,500,000
Arrow Field Services	10” and 8” NGL Pipeline	$6,300,000
Savage Bakken Connector	10” Crude Oil Pipeline	$6,000,000
Targa Badlands	8” Crude Oil Pipeline Conversion	$85,000,000
Epping Transmission Co.	12.75” Crude Oil Pipeline	$7,000,000
Caliber Bear Den	12.75” Crude Oil Pipeline	$12,000,000
NST Express	8” Crude Oil Pipeline	$6,800,000
Hess North Dakota	12”Crude Oil Pipeline	$4,500,000
Plains Terminal ND	24” Crude Oil Pipeline	$5,000,000
Bakken Oil Express	20” Crude Oil Pipeline Reroute	$14,400,000
BOE Pipeline	16” Crude Oil Pipeline	$55,000,000
ONEOK Bakken Pipeline	8” NGL Pipeline	$45,000,000
Cenex Pipeline	Terminal Project	$17,000,000
Sacagawea Pipeline Co.	16” Crude Oil Pipeline	$22,800,000
Oasis Midsteam Services	10.75” Crude Oil Pipeline	$13,000,000
ONEOK Bakken Pipeline	Pump Station Project	$8,000,000
Tesoro High Plains	12” Crude Oil Pipeline	$8,900,000
ONEOK Bakken Pipeline	16” NGL Pipeline	$19,520,000
NuStar Pipeline Operating	8” Refined Products Pipeline	$12,000,000
Sacagawea Pipeline Co.	12” Crude Oil Pipeline	$18,000,000
Plains Pipeline	Crude Oil Pipeline Reroute Project	$7,000,000
Hiland Crude	Crude Oil Pipeline Conversion	$3,600,000
Hiland Crude	8” Crude Oil Pipeline	$15,000,000
NST Express	12” Crude Oil Pipeline	$80,000,000
Vantage Pipeline US	8” Ethane Pipeline	$20,000,000
ONEOK Bakken Pipeline	8” NGL Pipeline	$6,000,000
Sacagawea Pipeline Co.	16” Crude Oil Pipeline	$125,000,000
Bridger Pipeline	16” Crude Oil Pipeline	$10,400,000
Plains All American Pipeline	8” Crude Oil Pipeline	$9,000,000
Hess North Dakota	NGL Pipeline Conversion	$2,190,000
Hess North Dakota	12” Crude Oil Pipeline	$104,700,000
Dakota Access LLC	Crude Oil Pipeline	$1,410,000,000
Hiland Crude	12” Crude Oil Loop Pipeline	$10,500,000

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• Meadowlark Midstream Co.	10” Crude Oil Pipeline	$33,000,000
• Meadowlark/Epping	Conversion & Station Expansion	$18,000,000
• Tesoro High Plains	Storage Hub & Tank Storage	$31,500,000
• Caliber Midstream Partners	6” NGL Pipeline	$1,800,000
• Targa Badlands	8” Crude Oil Pipeline Conversion	$41,000,000
• ONEOK Bakken Pipeline	6” NGL Pipeline	$6,000,000
• Meadowlark Midstream Co.	8” Crude Oil Pipeline	$21,000,000
• Belle Fourche Pipeline	10” Crude Oil Pipeline	$7,900,000
• Enbridge Pipelines	24” Crude Oil Pipeline	$1,300,000,000
• Bakken Oil Express	16” Crude Oil Pipeline	$14,000,000
• Dakota Prairie Refining	Crude Oil Pipeline	$5,000,000
• Hiland Crude LLC	Crude Oil Pipeline	$55,300,000
• Dakota Gasification Co.	10” Natural Gas Pipeline	$9,000,000
• Basin Transload	10” Crude Oil Pipeline	$4,500,000
• Hess Corporation	Crude Oil Pipeline	$1,000,000
• Basin Transload	8” Crude Oil Pipeline	$2,500,000
• Hiland Operating	6” Natural Gas Pipeline	$1,500,000
• Magellan Midstream	Petroleum Product Pipeline Reroute	$1,342,500
• Plains Pipeline	10.75” Crude Oil Pipeline	$13,600,000
• ONEOK Rockies Midstream	10.75” NGL Pipeline	$6,000,399
• Montana-Dakota Utilities	10” Natural Gas Pipeline	$18,400,000
• Enbridge Pipelines	Crude Oil Connection & Upgrade	$34,000,000
• Enbridge Pipelines	Pump Station Upgrade	$35,000,000
• Enbridge Pipelines	Pipeline Expansion Project	$102,500,000
• Vantage Pipelines	10 to 12” NGL Pipeline	$60,000,000
• Hess Corporation	6” and 8” LPG Pipeline	$5,000,000
• Whiting Oil and Gas	8” Crude Oil Pipeline	$3,360,000
• Arrow Field Services	8” Crude Oil Pipeline	$2,000,000
• Bear Paw Energy	10.75” NGL Pipeline	$24,000,000
• Rangeland Energy	8” Crude Oil Pipeline	$15,000,000
• Plains Pipeline	12.75” Crude Oil Pipeline	$200,000,000
• Enbridge Pipelines	16” Crude Oil Pipeline	$132,600,000
• Enbridge Pipelines	Crude Oil Pipeline Expansion	$73,100,000
• Hiland Operating	8” Natural Gas Pipeline	$3,400,000
• Hiland Operating	6” Natural Gas Pipeline	$4,000,000
• BakkenLink Pipeline	10” to 16” Crude Oil Pipeline	$250,000,000
• Enbridge Pipelines	Crude Oil Pipeline Upgrade	$8,900,000
• Bridger Pipeline	10” Crude Oil Pipeline	$25,000,000
• Hawthorn Oil Transportation	8” Crude Oil Pipeline	$2,500,000
• Whiting Oil & Gas Corp.	8” Crude Oil Pipeline	$6,100,000
• Whiting Oil & Gas Corp.	6” Natural Gas Pipeline	$3,300,000

• Enbridge Pipelines	Pump Station Upgrades	$6,000,000
• Enbridge Pipelines	Pump Station Upgrades	$119,700,000
• Enbridge Pipelines	8” Crude Oil Pipeline Reroute	$500,000
• Belle Fourche Pipeline Co.	8” Crude Oil Pipeline	$10,200,000
• Dakota Gasification Co.	14” CO2 Pipeline Reroute	$10,500,000
• Enbridge Energy	36” Liquid Petroleum Pipeline	$90,700,000
• Enbridge Pipelines	20” Crude Oil Pipeline	$31,528,800
• TransCanada Keystone	30” Crude Oil Pipeline	$400,000,000
• Enbridge Pipelines	Crude Oil Pump Stations	$16,995,000
• Enbridge Pipelines	10” Crude Oil Pipeline	$25,122,200
• Enbridge Pipelines	Pump Station Upgrades	$16,450,000
• Enbridge Pipelines	Pump Station Upgrades	$3,200,000
• Plains Pipeline	10” Crude Oil Pipeline	$1,500,000
• Plains Pipeline	10” Crude Oil Pipeline	$750,000

Total Investment = $5,772,058,899

Solar Generation:

Company	Type	Cost Investment
• Harmony Solar ND	200 MW Solar Facility	$250,000,000

Total Investment = $250,000,000

Wind Generation:

Company	Type	Cost Investment
• Emmons-Logan Wind	298.1 MW Wind Energy Center	$415,000,000
• Langdon Wind	Siting Exclusion Certification	$113,000,000
• Allete Clean Energy	Wind Farm Expansion	$80,000,000
• Foxtail Wind	150 MW Wind Energy Center	$400,000,000
• MDU/Thunderspirit Wind	Wind Farm Expansion	$86,500,000
• Glacier Ridge Wind	300.15 MW Wind Energy Center	$202,000,000
• Oliver Wind III	100 MW Wind Energy Center	$153,000,000
• Brady Wind II	Wind Energy Center	$250,000,000

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• Brady Wind	150 MW Wind Energy Center	$250,000,000
• Lindahl Wind Project	150 MW Wind Energy Center	$248,500,000
• Rolette Power Development	100.4 MW Wind Energy Center	$175,000,000
• Antelope Hills Wind Project	172 MW Wind Energy Center	$250,000,000
• Sunflower Wind Project	110 MW Wind Energy Center	$200,000,000
Allete, Inc. Bison 4	210 MW Wind Energy Center	$400,000,000
• Courtenay Wind Farm	200.5 MW Wind Energy Center	$170,000,000
• Lake Region State College	1.6 MW Wind Energy Project	$4,300,000
• Allete Clean Energy	100 MW Wind Energy Center	$200,000,000
• Wilton Wind IV	99 MW Wind Energy Center	$165,000,000
• Thunder Spirit Wind	150 MW Wind Energy Center	$300,000,000
• Oliver Wind III	48 MW Wind Energy Center	$81,000,000
• Allete Bison 3 Project	105 MW Wind Energy Center	$160,000,000
• Meadowlark Wind I	99 MW Wind Energy Center	$180,000,000
• Allete Bison 2 Project	105 MW Wind Energy Center	$160,000,000
• Ashtabula Wind III	70 MW Wind Energy Center	$140,000,000
• Baldwin Wind	99 MW Wind Energy Center	$200,000,000
• CPV Ashley Renewable	487.6 MW Wind Energy Center	$440,000,000
• Allete Bison I Project	75.9 MW Wind Energy Center	$170,000,000
• Rough Rider Wind I	175 MW Wind Energy Center	$310,000,000
• EDF Renewable/NSP	150 MW Wind Energy Center	$400,000,000
• Sequoia Energy US/NSP	150 MW Wind Energy Center	$300,000,000
• Basin Electric Power Coop.	115.5 MW Wind Energy Center	$240,000,000
• M-Power LLC	150 MW Wind Energy Center	$300,000,000
• Ashtabula Wind	200 MW Wind Energy Center	$350,000,000
• Langdon Wind	40 MW Wind Farm Expansion	$73,000,000
• Just Wind	368 MW Wind Energy Center	$285,000,000
• Langdon Wind	160 MW Wind Energy Center	$250,000,000
• PPM Energy	150 MW Wind Energy Center	$170,000,000

Total Investment = $8,271,300,000

Total Investment in Approved Siting Projects (all categories) = $19,695,369,899

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"**SECTION 4. AMENDMENT.** Subsection 5 of section 49-22-08 of the North Dakota Century Code is amended and reenacted as follows:

5. The commission may designate a site or corridor for a proposed facility following the study and hearings provided for in this chapter. Any designation shall be made in accordance with the evidence presented at the hearings, an evaluation of the information provided in the application, the criteria established pursuant to section 49-22-05.1, and the considerations set out in section 49-22-09 in a finding with reasons for the designation, and shall be made in a timely manner no later than six months after the filing of a completed application for a certificate of site compatibility or no later than three months after the filing of a completed application for a certificate of corridor compatibility. The time for designation of a site or corridor may be extended by the commission for just cause. The failure of the commission to act within the time limits provided in this section shall not operate to divest the commission of jurisdiction in any certification proceeding. The commission shall indicate the reasons for any refusal of designation. Upon designation of a site or corridor, the commission shall issue a certificate of site compatibility or a certificate of corridor compatibility with such terms, conditions, or modifications deemed necessary. The commission may not condition the issuance of a certificate or permit on the applicant providing a mitigation payment assessed or requested by another state agency or entity to offset a negative impact on wildlife habitat.

SECTION 5. AMENDMENT. Subsection 5 of section 49-22.1-07 of the North Dakota Century Code is amended and reenacted as follows:

5. The commission shall designate a route for the construction of a gas or liquid transmission facility following the study and hearings provided for in this chapter. This designation must be made in accordance with the evidence presented at the hearings, an evaluation of the information provided in the application, the criteria established pursuant to section 49-22.1-03, and the considerations set out in section 49-22.1-06 in a finding with reasons for the designation, and must be made in a timely manner no later than six months after the filing of a completed application. The time for designation of a route may be extended by the commission for just cause. The failure of the commission to act within the time limit provided in this section does not operate to divest the commission of jurisdiction in any permit proceeding. Upon designation of a route the commission shall issue a permit to the applicant with the terms, conditions, or modifications deemed necessary. The commission may not condition the issuance of a certificate or permit on the applicant providing a mitigation payment assessed or requested by another state agency or entity to offset a negative impact on wildlife habitat."

Audubon

Madam Chairman, members of the committee and Senate,

Good morning, my name is Jerry Doan, a 5th generation rancher from McKenzie, ND.

Unfortunately, HB 1383 would (1) strip the Public Service Commission of important tools needed to do their job effectively, (2) potentially shift the mitigation risk associated with developing projects such as wind energy onto our state and away from the developers, and (3)take us down a road of increasing and expanding government.

President and one-time North Dakota Rancher, Teddy Roosevelt once said "That he most heartily sympathized with the purpose of the Audubon Society." I agree with a lot of what President Roosevelt said during his life, but up until 6 or 7 years ago I never thought this statement would be one of them! However, The Audubon Society I know, the one here in North Dakota, with their local staff and local board members is a group that I have been proud to work with.---------

As North Dakota continues to benefit from the rewards of increasing natural gas and oil production, we must also recognize the increasing contribution that wind energy is having for our state. While the potential for large economic benefits in renewable energies can surely help sustain the prosperity of North Dakota for decades to come, we must be smart about how we implement wind energy in our state, and carefully consider the pros and cons of where development will take place like you would for any construction project. I believe we have the right tools and laws in place now to strike that balance in the Public Service Commission. Any development that allows for infrastructure spanning miles across North Dakota's landscape, and up to three times the height of this very building, our state capitol, will affect every person in this state one way or another. It will also affect our precious wildlife, both directly and, yes, indirectly. This is not the time for us to take away important consideration factors and criteria available to our public service commission, enshrined in our state's century code, which would help them do their jobs effectively as they address this new form of development.

With that in mind, a study or consensus approach needs to be created that is rooted in collaboration between the many people and groups that help preserve our way of life. No wind energy approach should go forward without the local support of landowners directly impacted; without careful discussion from representatives of the energy industry or state agencies that help maintain and protect North Dakota's natural resources. From those discussions will we have a wind energy development approach that can be both in favor of economic growth and of wildlife.

Despite the best intentions of the sponsors and cosponsors of this bill, I fear that it creates more red tape and expands government in a way that could have lasting impacts to the way we develop energy in our state. For that main reason, I ask this committee to consider alternative ways to address the problem at hand in a way that reduces government, not expand it.

Further, the citizens of North Dakota are represented, in energy matters, by the Public Service Commission. I have a lot of faith in this group of smart, capable, and committed public servants. Stripping or hampering their ability to do their jobs for our state is the wrong approach.

I want it to be known that the group that I am representing here today, Audubon Dakota, is in favor of properly sited wind energy and development. Period. They've supported projects like Courtenay Wind near Jamestown, and others, while recognizing - along with hundreds of local landowners like myself - that projects such as the PNE Burleigh-Emmons Project don't fit the bill and would negatively affect local landowners, displace wildlife and impact North Dakota's critically important waterfowl populations, along with other species of wildlife that bring millions of dollars every year into our state. We have the potential to grow North Dakota's economy, not merely because we have access to an abundant renewable resource, but because we can expand how we power our great state and region while still preserving what North Dakota is known for: it's beauty and people.

The bill at hand creates a need for expanding government and bureaucracy, an approach that could very well slow down and threaten the whole process of wind energy permitting in our state. It also shifts the burden of mitigation away from companies and onto North Dakota.

We really need to study this problem deeper, and having a collaborative approach with stakeholders from farmers and ranchers, agricultural groups, the energy industry, and natural resource professionals would help remove the need for additional government and would help identify solutions that accelerate sensible development of our renewable resources in a smart and thoughtful way. We mustn't allow poorly developed projects to happen unabated across our beautiful state, nor should we be in the business of creating more government and potential red tape. We have a public service commission, duly elected by we the people to address that. I ask today that we consider affording them the right to do their jobs, just as we would all want the tools to do our own jobs, whatever they may be.

In closing I will leave you with this about our former President and fellow North Dakota rancher recently, I learned that one of Roosevelt's favorite birds and song was that of the Western Meadowlark….true story…we ranchers know it well, as it signals the coming of spring and another opportunity, afforded by God and good luck, to make another go of it out on the land. The truth is, when we develop towers that are the sizes that they are today within a certain distance of the Meadowlark, science and commonsense tells us that we will surely see a lot less of them around. I urge us all to search our hearts, get this right, and protect what's important to us in North Dakota. Thank you.

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Ducks Unlimited

TESTIMONY IN OPPOSITION TO HB 1383
Carmen Miller, Director of Public Policy, Ducks Unlimited
North Dakota Senate Energy and Natural Resources Committee
March 7, 2019

Good morning, Chairwoman Unruh and members of the committee. My name is Carmen Miller and I am the Director of Public Policy for Ducks Unlimited's Great Plains Region in Bismarck, and I'm here today to testify in opposition to HB 1383. Ducks Unlimited was founded in 1937 and is now the world's largest private waterfowl and wetlands conservation organization, with over 80 years of experience restoring and protecting wetlands and other aquatic habitat. DU has been working in North Dakota for over 30 years, has over 4000 members in the State, has invested over $100 million in North Dakota, and employs a staff of over 40 in an office in Bismarck which serves as a regional headquarters for 7 states.

HB 1383 is concerning for three reasons: (1) It eliminates the consideration of indirect impacts to the environment and wildlife resulting from energy transmission, conversion, and siting; (2) It proposes to expand both the scope and membership of the federal environmental law impact review committee with no representation from the environmental, wildlife, or natural resources community; and (3) It proposes to utilize taxpayer dollars to subsidize the mitigation of environmental impacts from energy development.

With respect to indirect impacts, I want to provide the committee with scientific information on the indirect impacts of wind development on breeding duck pairs within North Dakota. Ducks Unlimited is generally supportive of the wind industry as a renewable source of energy that can be produced locally. DU has been monitoring the growth of the industry in North Dakota since 2003, and has been involved in numerous wind energy collaboratives, including the Northern Plains Wind Energy Forum and the North Dakota Wind and Wildlife Collaborative. North Dakota is in the heart of the Prairie Pothole Region, known as "the duck factory" of North America, which provides breeding habitat for more than 50% of the continent's population of breeding ducks. North Dakota has an export economy – we export wheat, corn, soybeans, electricity, oil and ducks. Attached to my testimony are two maps showing, first, the Prairie Pothole Region, and the density of breeding pairs in that landscape, and second, the overlay of the PPR with average annual wind speed. In addition to being the "duck factory" of North America, North Dakota has also been referred to as the "Saudi Arabia of wind," and these maps illustrate that.

DU began researching both direct and indirect impacts of wind development in 2008, with a focus on the impact on breeding females. Direct impacts typically involve collisions with wind turbines, or the actual placement of a wind turbine directly in a wetland. Indirect impacts involve the avoidance of otherwise typical habitat. Ducks Unlimited researchers spent two summers conducting the first-ever study on the impacts of collisions on just breeding female ducks. While collisions have a significant impact on migrating birds, there were limited collisions for breeding female mallards and blue-winged teals, suggesting that wind turbines had no direct effect on female survival. In other words, breeding females were not meaningfully impacted by collisions with wind turbines.

During the summers of 2008-2010, Ducks Unlimited partnered with the US Fish and Wildlife Service and NextEra Energy to study the impacts of wind energy development on the density of breeding duck pairs. For three summers, researchers conducted field surveys of breeding pairs in the Kulm-Edgeley and Tatanka wind farms, which involved over 10,000 wetland visits and observation of over 15,000 breeding duck pairs, and comparisons of conditions and pairs at those sites with comparable reference sites without wind energy development. The study demonstrated that five species of dabbling ducks exhibited an average decline of 20% within 800 meters of wind turbines on the Tatanka and Kulm/Edgeley wind farms. These species include the Mallard, Northern Pintail, Northern Shoveler, Blue-winged Teal, and Gadwall, all species important to the "duck factory of North America." In the breeding-intense landscape of the Prairie Pothole Region, the indirect impacts of wind energy development, marked by habitat avoidance, are actually more significant than the direct impacts, or collisions.

Indirect impacts in the form of habitat avoidance are very real, documented, and the subject of peer-reviewed and published scientific research. They will continue to exist, regardless of how these issues are addressed in the Century Code. A 20% reduction in one of our state's exports should not be taken lightly.

HB 1383 also proposes to expand the federal environmental law impact review committee to include the administration of an environmental impact mitigation fund, with no representation from the environmental, wildlife, or natural resources communities. At least state agencies with expertise in these areas, such as, for example, the Game and Fish Department, the Water Commission, or the Department of Natural Resources, should be included on any committee administering such a fund. By eliminating the input of these constituencies, this proposal ignores an important part of North Dakota's economy. Tourism, which is highly depending on our state's natural resources, is the third largest sector of the economy, with hunting and fishing alone contributing $2 billion annually. The Legislature would not enact policies relating to education without the input of teachers, or policies relating to agriculture without the input of farmers, and similarly, the advice and consent of this industry is necessary to administering such a fund.

And finally, this committee should reject the proposal in this bill to appropriate $5 million for an environmental impact mitigation fund. If energy development has environmental, wildlife, or other impacts, those should be addressed and paid for by the developers. Taxpayers should not be subsidizing the mitigation of impacts from energy development.

For these reasons, we urge the committee to adopt a do not pass recommendation. Thank you for your time and consideration of this important issue, and for your service.

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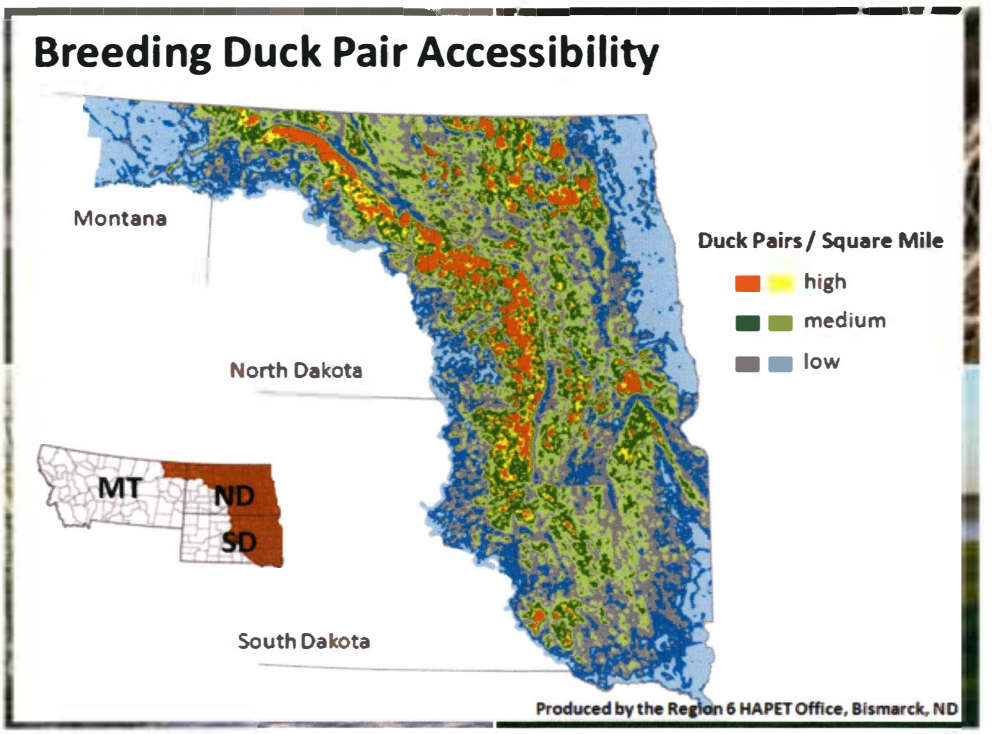

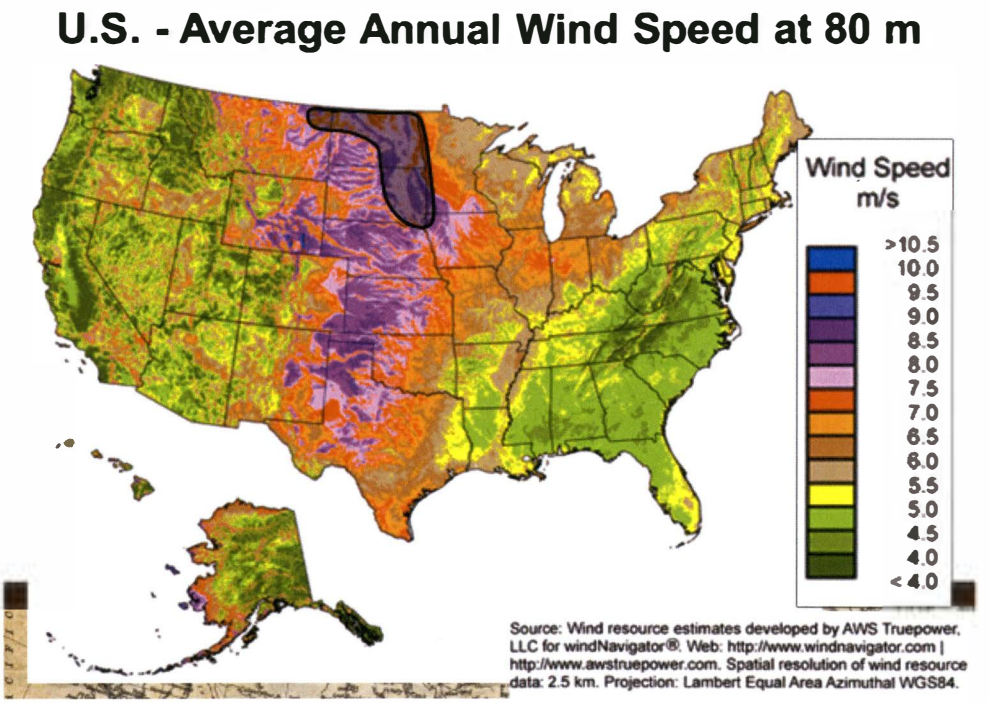

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Research Article

The Effects of a Large-Scale Wind Farm on Breeding Season Survival of Female Mallards and Blue-Winged Teal in the Prairie Pothole Region

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ABSTRACT The wetlands and grasslands of the Prairie Pothole Region (PPR) make it the most productive breeding habitat for North American ducks. The growth rate of mallard (*Anas platyrhynchos*) populations is sensitive to changes in survival of adult females during the breeding season. Much of the PPR is suitable for large-scale wind-energy development and collisions of breeding females with wind turbines may be a novel source of mortality in this area. We assessed the effects of wind energy on breeding female mallard and blue-winged teal (*A. discors*) survival by monitoring 77 radio-marked mallards and 88 blue-winged teal during the 2009 and 2010 breeding seasons at the Tatanka Wind Farm (TWF) near Kulm, North Dakota. During the same period, we monitored 70 female mallards and 75 blue-winged teal at an adjacent reference site without wind turbines (REF). We used an information-theoretic approach to investigate relationships between female survival and site (TWF vs. REF), year (2009 vs. 2010), and date. Collision mortalities were rare. Only 1 radio-marked female mallard and no blue-winged teal collided with wind turbines. Most mortalities were caused by predators (78.3%; 36/46), irrespective of species and site. For mallards, the best-approximating model indicated that breeding season survival was 1) lowest when a high proportion of radio-marked females were incubating, and 2) dependent on year and site such that expected survival ($\hat{S}$) in 2009 was higher at TWF ($\hat{S}$ = 0.90, 85% CI = 0.79–0.98) than at REF ($\hat{S}$ = 0.83, 85% CI = 0.68–0.95), but expected survival in 2010 was lower at TWF ($\hat{S}$ = 0.62, 85% CI = 0.46–0.79) than at REF ($\hat{S}$ = 0.84, 85% CI = 0.72–0.94). For blue-winged teal, the constant model was the best-approximating model and indicated that expected female survival was 0.75 (85% CI = 0.69–0.82). The most competitive model for blue-winged teal that included the effect of wind turbines indicated that expected survival at TWF ($\hat{S}$ = 0.71, 85% CI = 0.62–0.79) was lower than survival at REF ($\hat{S}$ = 0.81, 85% CI = 0.73–0.89). The limited number of collisions observed for female mallards and blue-winged teal nesting at TWF suggests that wind turbines had no direct effect on female survival. Thus, conservation strategies that include protection of wetland and grassland habitat in wind-developed landscapes will most likely not cause a direct reduction in survival of breeding females due to collisions with wind turbines. © 2013 The Wildlife Society.

KEY WORDS adult survival, *Anas discors*, *Anas platyrhynchos*, blue-winged teal, breeding population, mallard, Prairie Pothole Region, radio-telemetry, wind energy, wind turbines.

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The demand for energy and growing concern about potential environmental impacts of traditional energy sources have caused increased interest in alternative energy sources (Arnett et al. 2007, Meseguer 2007). Wind energy is the fastest growing source of alternative energy, with an average annual growth rate in the United States of 39% (2005–2009; American Wind Energy Association 2010). Similar to more traditional energy development projects (coal, Anderson 1978; coal-bed natural gas, Walker et al. 2007; natural gas and oil, Gilbert and Chalfoun 2011), wind energy may also create conflicts for wildlife populations when it alters habitat in a way that reduces survival, productivity, or both (Fox et al. 2006, Johnson and St-Laurent 2011). For example, recent studies have confirmed additional mortality in populations of birds (primarily raptors and passerines) and bats due to direct collisions with wind turbines or associated infrastructure (Erickson et al. 2001, Arnett et al. 2008). However, collision risk may depend on a variety of site- and species-specific factors (Drewitt and Langston 2006). For example, collision risk may be higher at wind developments near preferred hunting habitat, as documented for common kestrels in Spain (*Falco tinnunculus*; Barrios and Rodrguez 2004), or for species that have high wing loading (Janss 2000, De Lucas et al. 2008). Given the rate at which wind energy is expanding and an incomplete understanding about the potential impacts of wind energy on wildlife, concern exists about the effect of large-scale wind-energy developments on wildlife populations (Kiesecker et al. 2011, Fargione et al. 2012).

The Prairie Pothole Region (PPR) provides critical breeding habitat for more than 50% of the continent's population of dabbling ducks (*Anas* spp.; Smith et al. 1964, Bellrose 1980, Kaminski and Weller 1992). As a result, the PPR has been identified as the highest priority for waterfowl conservation by the North American Waterfowl Management Plan (NAWMP; North American Waterfowl Management Plan Committee 2012). However, programs that conserve habitat for breeding waterfowl in the PPR were conceived in the absence of large-scale wind-energy development. Wind resources are particularly abundant in the PPR (Kiesecker et al. 2011:fig. 2, National Renewable Energy Lab 2011). This creates an apparent overlap between an area of high wind-energy potential and an area of primary conservation concern for migratory waterfowl. Although wind-energy development in the PPR is expanding, the effect of wind-energy development on waterfowl populations, particularly in North America, is poorly understood (Stewart et al. 2007, but see Loesch et al. 2013).

A primary concern regarding wind energy in the PPR is decreased survival of breeding females because of potential collisions with wind turbines. Breeding season survival of female mallards (*Anas platyrhynchos*), and presumably other upland nesting ducks, is one of the most limiting factors on population growth (Hoekman et al. 2002). Female dabbling ducks suffer greater mortality during the incubation period than any other period of their annual life cycle because of increased vulnerability to predation (Johnson and Sargeant 1977, Sargeant et al. 1984), but collision of ducks with turbine blades or other associated infrastructure may represent a novel source of breeding season mortality.

We predicted that if breeding females are susceptible to collision with wind turbines, the probability of survival for females nesting in landscapes near wind turbines would be lower than for females nesting in similar landscapes without wind turbines. Siegfried (1972) hypothesized that male dabbling ducks may be susceptible to collisions with anthropogenic structures during pursuit flights because of a potential decrease in their awareness of such features. We predicted that female ducks may also be particularly susceptible to collision with wind turbines during pre-nesting courtship flights shortly after arrival at the breeding grounds (Titman 1983), as opposed to other periods (e.g., incubation) when females may spend more than 20 hours of a 24-hour period at nests (Afton and Paulus 1992). Further, because of increased fragmentation of grassland habitat at wind farms in the PPR (Bureau of Land Management 2005), predators might be more efficient at locating duck nests and depredating nesting females in wind-developed landscapes (Cowardin et al. 1983, Sargeant et al. 1993). To test these predictions, we used an impact-reference study design (Morrison et al. 2008). We radio-marked and monitored breeding female ducks from April to August in 2009 and 2010 at a wind development and an adjacent reference site with similar landscape characteristics but without wind turbines.

To our knowledge, this study was the first attempt to investigate potential effects of wind-energy development on the survival of breeding female ducks. The primary focus of our study was to assess the risk of collision for breeding females. Our goals were to 1) assess support for our predictions about survival of female ducks during breeding in wind-energy developments and 2) provide managers with useful information about relationships between survival probability of breeding females and wind-energy development in landscapes of the PPR with abundant grassland and wetland habitat.

STUDY AREA

In 2009 and 2010, we studied adult female mallards and blue-winged teal (*Anas discors*) at the Tatanka Wind Farm (Tatanka, Acciona Energy Company, North America; hereafter TWF) and an adjacent reference site without wind turbines (hereafter REF; Fig. 1). The wind farm was located 40 km south of Kulm, North Dakota, USA (46°56′23″N, 99°00′20″W) and extended approximately 16.5 km on the Missouri Coteau physiographic region in Dickey County, North Dakota and McPherson County, South Dakota. The reference site was located in Dickey and McIntosh counties in North Dakota. The wind farm consisted of 120 operational wind turbines located on private lands in cropland or grassland habitat. Turbine operation at TWF began in May 2008. Each turbine (model AW-77/1500) had 3 37-m blades (76-m rotor diameter) atop an 80-m tower. The turbines operated at wind speeds between 3.5 m/s and 25 m/s and were capable of producing 1.5 MW/day (Acciona North America 2011).

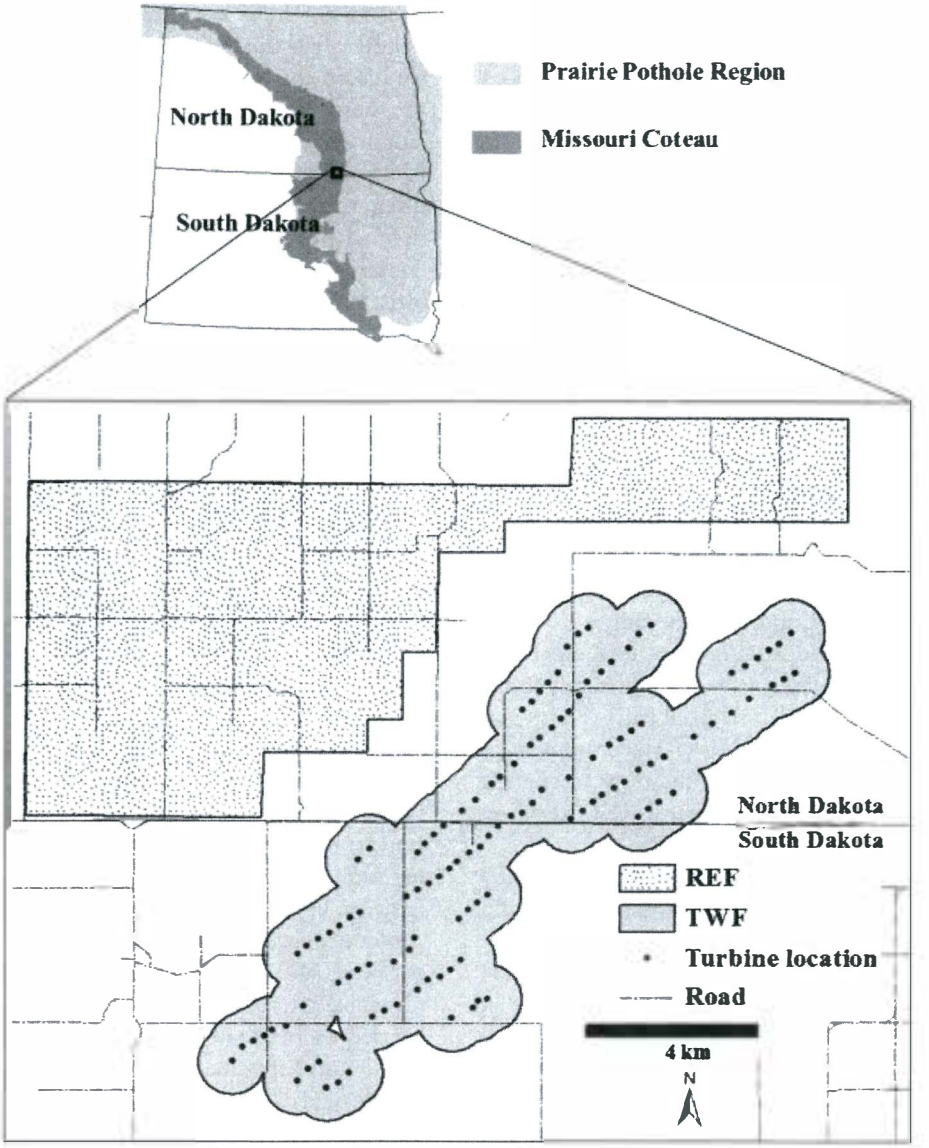

Figure 1. Location of the Tatanka Wind Farm (TWF) and the adjacent reference site (REF) on the Missouri Coteau of the Prairie Pothole Region in North and South Dakota, USA. A 0.8-km buffer around each wind turbine describes the extent of TWF (6,915 ha). We selected REF (8,768 ha) based on area and similarities in landscape characteristics with TWF.

Both sites were typical of the glaciated PPR landscape with moderately sloped topography (Bluemle 1979) and many temporary, seasonal, and semipermanent wetlands (Stewart and Kantrud 1971). Agricultural practices at both sites consisted primarily of livestock grazing and annually cultivated small grains and row crops. Habitat composition at TWF was 73.0% native grassland, 14.6% wetland, 6.6% cropland, 5.4% undisturbed grassland, 0.3% forest, and 0.1% hayland. Habitat composition at REF was 51.7% native grassland, 18.9% wetland, 17.0% undisturbed grassland, 12.1% cropland, 0.2% hayland, and 0.1% forest (U.S. Fish and Wildlife Service [USFWS] Region 6 Habitat and Population Evaluation Team, unpublished data). Wetlands were abundant at both sites (TWF: 23.4 basins/km^2, REF: 17.3 basins/km^2). Temporary, seasonal, and semipermanent wetlands occupied 33.3%, 33.4%, and 33.3% of the wetland area at TWF, respectfully, and 33.6%, 33.7%, and 32.7% of the wetland area at REF, respectively (USFWS 2011).

The climate at TWF and REF was continental with average monthly temperature during our study ranging between 4.83° C and 21.4° C (U.S. Department of Commerce 2011*a*). Annual precipitation at the study site averages 49.6 cm (U.S. Department of Commerce 2002). Between June and December 2008, the study sites received 54.9 cm of precipitation (U.S. Department of Commerce 2011*b*). Taken together with above average precipitation in 2009 (64.5 cm) and 2010 (53.0 cm), conditions were exceptionally wet during both years of our study (U.S. Department of Commerce 2011*b*).

METHODS

Breeding female mallards in the PPR have home range sizes as large as 4.7 km^2 (Krapu et al. 1983). Blue-winged teal

have comparatively small home range sizes (0.26 km^2 [26 ha]; Evans and Black 1956, 0.74 km^2 [74 ha]; Gue 2012). However, female mallards and blue-winged teal use a small fraction of their entire home range during the egg laying and incubation period (Gilmer et al. 1975, Dwyer et al. 1979, Stewart and Titman 1980). Therefore, we assumed that if a female spent $\geq$ 50% of the breeding season within 0.8-km of a wind turbine, it adequately represented a duck that could be influenced by the presence of wind turbines. Consequently, we described the extent of TWF as all habitats within 0.8 km of each wind turbine. We selected REF boundaries based on the land area, landscape characteristics, and wetland communities of TWF (see Loesch et al. 2013). As with TWF, we assumed that if a female spent $\geq$ 50% of the breeding season within the boundaries of REF, it adequately represented a duck breeding in a similar landscape to TWF but without wind turbines.

Capture, Radio Attachment, and Monitoring

When mallards arrived on the study area in mid-April, we placed decoy traps in temporary, seasonal, and semipermanent wetlands where we observed territorial pairs (Sharp and Lokemoen 1987, Krapu et al. 1997). We checked decoy traps each morning and afternoon. We relocated traps frequently and distributed them throughout TWF and REF based on repeated observations of pairs on wetlands to capture a representative sample of the local mallard population. Decoy trapping continued for approximately 4 weeks in 2009 and 2010.

Beginning in early May of 2009 and 2010, we nest-searched approximately 1,000 ha at TWF and REF using an all-terrain vehicle chain-drag technique (Higgins et al. 1969, Klett et al. 1986). We conducted searches between 800 and 1400 (Gloutney et al. 1993), but we postponed or cancelled searches during periods of rainfall. We captured nesting mallards and blue-winged teal with walk-in nest traps (Dietz et al. 1994) or mist nets (Bacon and Evrard 1990) during egg-laying or early in incubation.

We marked decoy- and nest-trapped females with a standard USFWS leg band and a 9-g prong-and-suture very high frequency (VHF) transmitter equipped with a mortality sensor (Model A4430, Advanced Telemetry Systems, Isanti, MN). We attached transmitters dorsally using a subcutaneous anchor and 3 sterile monofilament polypropylene sutures (DemeTech Corporation, Miami, FL; 0 metric, 40-mm reverse cutting) following local anesthetic application (1 cc bupivacaine) as described by Pietz et al. (1995). We weighed captured females using a Pesola spring scale ($\pm$10 g) prior to transmitter attachment to ensure that the transmitter did not exceed 3% of the bird's total body weight (Cochran 1980, Barron et al. 2010). In the event that we captured a breeding pair in a decoy trap, we secured the male in a ventilated enclosure until the procedure was complete. We released both members of the pair simultaneously. To reduce nest abandonment, we manually disoriented nest-trapped females post-procedure. Specifically, we tucked the female's head under her wing and slowly swayed her in a horizontal figure-eight motion until the handler felt the female's muscles relax. At which point, we placed the female on her nest and quietly retreated from the nest site. This procedure generally took $\leq$ 1 minute. Total handling time of radio-marked females averaged 22.15 minutes (SD = 5.54 min). We recorded total handling time using a wristwatch or cellular telephone and defined it as the period beginning when the observer first contacted the bird and ending when the observer released the bird. We conducted trapping, banding, and collection under USFWS special permit (06824 and 64570) and North Dakota Game and Fish license (GNF02601675). All capture and marking procedures were sanctioned by the Institutional Animal Care and Use Committee of the University of North Dakota (Protocol no. 0907-4c).

We began monitoring radio-marked females as soon as 24 hours after radio attachment. For mallards, we included data in our analysis for the subsequent 92- and 94-day sampling period after the initiation of marking in 2009 and 2010, respectively. For blue-winged teal, we included data in our analysis for the subsequent 70- and 72-day sampling period after the initiation of marking in 2009 and 2010, respectively. We used vehicle-mounted null-peak receiving systems equipped with Location Of A Signal triangulation software (LOAS, version 4.0, Ecological Software Solutions LLC, Hegymagas, Hungary) or handheld antennas and standard triangulation techniques (White and Garrott 1990) to locate radio-marked females. We generally located females between 0700 and 2100. When a female's nest was destroyed, we later increased efforts to locate individuals between 0800 and 1400, a time when females may have been most likely to be on a new nest (Gloutney et al. 1993). We located each female within every 48-hour period between capture and termination of the sampling period unless the female died or was assumed to have left the study area. When females were missing during daily tracking, we searched via road searches and aerial telemetry flights over our study area and the surrounding area within approximately 3 km of the study area boundaries. In 2009, we searched for missing birds with 1 telemetry flight on 2 July. In 2010, we searched for missing birds with 5 telemetry flights on a tri-weekly interval. Encounter histories from females that we assumed to have either left the study area, shed their transmitter before monitoring ended, or became entangled in their transmitter were censored at the time of their last known live encounter. When radio-marked females died within 7 days of capture, we assumed that negative effects of capture and handling were a contributing factor (White and Garrott 1990:37, Cox and Afton 1998, Iverson et al. 2006), and we removed these individuals from the analysis.

Cause of Mortality

We recovered dead females as quickly as possible. Upon visual confirmation of mortality, we recorded the time, location, and cause of death. We considered carcass location (e.g., in a fox or mink den, below a raptor perch, below a wind turbine) and transmitter condition (e.g., apparent tooth or claw marks in transmitter molding, crimped antenna) when assigning the

possible cause of mortality. We took photographs and collected carcasses for further inspection. When we could not determine the cause of death in the field, we froze carcasses and submitted them to the National Wildlife Health Center (University of Wisconsin, Madison) for necropsy.

We categorized cause of death into 3 mortality factors: predation (mammal or raptor), collision (with wind turbine), and other. We identified collision mortalities based on proximity to wind turbine and carcass condition (e.g., visible appearance of trauma). We listed the cause of death as other if it was a rare occurrence for our sample, the carcass disclosed no obvious external indicators regarding the cause of death during observation in the field, or in cases where necropsy reports were inconclusive. For example, 1 female was killed by a hay swather while attending her nest. This was a rare occurrence. For another female, we could not determine the cause of death in the field, but necropsy reports suggested that the female drowned. This was also a rare occurrence. On 3 occasions, the cause of death could not be determined in the field and necropsy reports were inconclusive. One of these mortalities occurred 40 m from a wind turbine, but no evidence of trauma was visible. We categorized all 3 of these mortalities as other.

We were initially concerned that any females that struck turbines may be scavenged by predators, causing us to misclassify the mortality factor (Smallwood et al. 2010). During 2009, we used a transmitter equipped with a precise event mortality sensor that allowed us to determine the time of death to nearest 30 minutes (Advanced Telemetry Systems). In 2010, we used a simple tilt switch mortality sensor that did not record time since death. We determined the median retrieval time in 2010 using the interval between the last live encounter and the day of carcass discovery.

Statistical Analyses

We used an information-theoretic approach (Burnham and Anderson 2002) to assess the relative support for potential relationships between survival probability of breeding females and site, year, and date. We created a set of candidate models that described the potential effect of wind turbines on adult female survival given variation between years and within each breeding season. Every female in the analysis was described by 2 binary variables: site (TWF or REF) to account for the presence or absence of wind turbines, and year (2009 or 2010) to account for annual variation in female survival (Nichols et al. 1982, Blohm et al. 1987, Johnson et al. 1992).

To test our prediction that females may be susceptible to collision prior to incubation, an ideal covariate would have described each radio-marked female as either pre-incubating, incubating, or post-incubating. Similar to Devries et al. (2003) and Hoekman et al. (2006), we initially classified the behavioral phase of each female based on within-season nesting effort of all monitored female mallards and blue-winged teal. However, we detected either very few or no mortalities for some groups of females. For example, we did not observe any mallard mortalities during the generalized pre-nesting phase at TWF in 2009 (see Gue 2012). Therefore, we used date of the season as a continuous variable to account for potential within-season trends in daily survival rate (DSR) associated with different phases in the breeding cycle. Our model set included models with date, as well as models including both date and date^2, which allowed daily survival to follow a curvilinear pattern. As a baseline, we predicted a concave-up curvilinear relationship between DSR, date, and date^2 given that female ducks are more susceptible to predation during incubation (Johnson and Sargeant 1977, Sargeant et al. 1984, Arnold et al. 2012). We predicted that if mortalities increased because of collision with wind turbines during the pre-nesting period, we would observe a positive linear relationship between DSR and date or, possibly, a concave-down curvilinear relationship between DSR, date, and date^2.

We used Program MARK (White and Burnham 1999) to evaluate support for our predictions and constant survival independent of variables (S.) We chose the most parsimonious model(s) using Akaike's Information Criterion adjusted for sample size (AIC_c; Burnham and Anderson 2002). Because encounter histories were of unequal length (i.e., ragged telemetry), we used the nest survival data format and nest survival module in Program MARK (Dinsmore et al. 2002) to compare survival of females at TWF and REF. This method, unlike the known-fate method, enabled us to include data of radio-marked females with uneven intervals between resightings. We reported survival estimates using 85% confidence intervals because these intervals are more appropriate for AIC-based model selection than 95% confidence intervals (Arnold 2010).

The models of DSR required that the data met the following 4 assumptions: 1) female fates were known, 2) investigator activity did not influence female fate, 3) female fates were not correlated, and 4) survival among females was not heterogeneous (Dinsmore et al. 2002, Williams et al. 2002). To avoid confusion of movement and mortality, we specifically targeted females missing from daily tracking with road searches and telemetry flights, and we right-censored capture histories of females that left the study area. To reduce potential effects of investigator disturbance on female survival, we 1) flushed radio-marked females as infrequently as possible and 2) spent as little time at radio-marked females' nests as possible.

An unbiased test and associated adjustment factor for correlation of fates and heterogeneity of survival is not available for nest survival models in Program MARK (Dinsmore et al. 2002, Rotella et al. 2007). Nevertheless, little evidence exists for correlation and heterogeneity of fates in large samples of radio-marked mallards, and previous researchers have used unadjusted estimates and model selection criteria for inference in studies of survival of radio-marked females (Devries et al. 2003, Brasher et al. 2006, Bond et al. 2009). We adopted this approach to the analysis of our smaller dataset.

RESULTS

During our 2-year study, we marked 81 and 85 female mallards at REF and TWF, respectively. We censored 11

and 8 female mallards at REF and TWF, respectively, because they were either monitored ≤ 1 week ($n = 16$), their transmitter failed ($n = 1$), or their transmitter emitted a mortality signal on private land that we could not gain access to ($n = 2$). Thus, we analyzed 3,555 exposure days for 70 females at REF and 3,693 exposure days for 77 female mallards at TWF (see Table S1, available online at www.onlinelibrary.wiley.com). Approximately, half (75/147) of the female mallards included in the survival analysis were decoy-trapped prior to nesting. In comparison, we captured all blue-winged teal females at the nest. We marked 79 and 94 female blue-winged teal at REF and TWF, respectively. We censored 4 blue-winged teal at REF and 6 blue-winged teal at TWF because they were monitored ≤ 1 week. Thus, we analyzed 2,651.5 exposure days for 75 females at REF and 3,130.5 exposure days for 88 females at TWF (see Table S1, available online at www.onlinelibrary.wiley.com). Of the 310 female mallards and blue-winged teal included in analyses, we monitored 128 for the duration of the study period, right censored 136, and recorded 46 mortalities (Table 1). We right censored data from females that we assumed to have either left the study area ($n = 94$), shed their transmitter before monitoring ended ($n = 36$), or became entangled in their transmitter ($n = 6$).

Cause of Mortality

Median retrieval time of all dead birds and shed transmitters in 2009 and 2010 was 49 hours ($n = 35$; range = 8–128 hr) and 48 hours ($n = 47$; range = 24–505 hr), respectively. Median retreival time of all carcasses and shed transmitters in both years at REF was 48 hours ($n = 32$; range = 8–216 hr). We recovered carcasses and shed transmitters in both years at TWF similarly with the exception of 1 female; median retrieval time was 48 hours ($n = 50$; range = 8–505 hr).

Table 1. Number of female mortalities by species (MALL, mallard; BWTE, blue-winged teal), site (Tatanka Wind Farm [TWF] or reference [REF]), year (2009 or 2010), and mortality factor. Mortalities caused by raptors or mammals are included as predator mortalities. We categorized mortalities in which the cause of death was rare or could not be determined in the field and necropsy reports were inconclusive as other mortalities.

	Collision	Predator	Other	Total
2009				
REF				
MALL	0	2	1	3
BWTE	0	3	0	3
TWF				
MALL	1[a]	1	0	2
BWTE	0	8	0	8
2010				
REF				
MALL	0	3	2	5
BWTE	0	5	0	5
TWF				
MALL	1	7	5	13
BWTE	0	7	0	7
Total	2	36	8	46

[a] Mortality could not confidently be attributed to wind turbines. Other obstructions occurred in the immediate area of her carcass (e.g., barb-wire fence, power line).

Although we detected few mallard mortalities at REF and TWF in 2009, predation was the most common cause of mortality for mallards at both sites in 2009 and 2010 (TWF: 8/15, REF: 5/8; Table 1). We detected similar numbers of blue-winged teal mortalities at both sites in 2009 and 2010. Predation was the only cause of mortality for blue-winged teal at both sites (TWF: 15/15, REF: 8/8; Table 1). Among all recorded mortalities across species, predation accounted for 78.3% ($n = 36/46$) of deaths. We observed 8 mallard mortalities in which we either could not determine the cause of death in the field, necropsy reports were inconclusive, or the cause of death was rare for our sample (e.g., 1 nesting female was killed by a hay swather and another may have drowned). On 3 occasions at TWF, the cause of death could not be determined in the field and necropsy reports were inconclusive. Although 1 of these 3 mortalities occurred 40 m from a wind turbine, there was no evidence of trauma in all cases. These carcass characteristics were inconsistent with obvious external trauma that we observed for an individual female that collided with a wind turbine.

Wind turbine collision contributed to 1 of 15 mallard deaths at TWF (Table 1). We observed 1 additional mallard collision mortality at TWF, but multiple vertical obstructions in the immediate area confounded the cause of mortality (e.g., wind turbine, barbed-wire fence, power line). We observed no blue-winged teal collision-related mortalities (Table 1).

Survival Rates

We observed support that female mallard DSR varied within the season, as the 3 most competitive models included a quadratic time trend (Table 2). We accrued evidence that mallard DSR varied by year, and we observed some evidence that DSR varied by site. Our best-approximating model indicated that mallard DSR varied by each of these factors with an interaction between site and year (Table 2). Nonetheless, we found some model selection uncertainty and the weight of evidence in support (w_i) of the best-

Table 2. Model selection results from analysis investigating female mallard daily survival rate (DSR) at the Tatanka Wind Farm (TWF) and adjacent reference site (REF) in the Prairie Pothole Region of North and South Dakota, USA. We modeled DSR as a function of year (2009 and 2010), site (TWF and REF), and time (date) within the breeding season. We modeled quadratic time trends (date + date^2) to investigate predictions about survival during 3 behavioral periods (pre-incubation, incubation, post-incubation) of female mallards. We selected the best model using Akaike's Information Criterion corrected for sample size (AIC_c). We report model weights (w_i), the number of parameters (K), and deviance for each DSR model.

DSR model	ΔAIC_c	w_i	K	Deviance
Site × year + date + date^2	0.00	0.33	6	252.44
Year + date + date^2	0.28	0.29	4	256.73
Site + date + date^2	1.65	0.15	4	258.10
Site × year	3.38	0.06	4	259.82
Site + year	3.80	0.05	3	262.24
Year	4.01	0.05	2	264.46
Site × year + date	4.80	0.03	5	259.24
Constant	5.30	0.02	1	267.75
Site	5.40	0.02	2	265.84

approximating model was 0.33. According to this model, survival varied by time such that the lowest DSR occurred during the middle of the season, which generally corresponded to the highest proportion of females incubating at both sites in 2009 and 2010 (Fig. 2). The estimated 93-day survival probability of radio-marked female mallards for this model at REF was 0.83 (85% CI = 0.68–0.95) and 0.84 (85% CI = 0.72–0.94) in 2009 and 2010, respectively. According to this model, the 93-day survival probability at TWF was high in 2009 ($\hat{S}$ = 0.90, 85% CI = 0.79–0.98), but low in 2010 ($\hat{S}$ = 0.62, 95% CI = 0.46–0.79).

We observed similar levels of uncertainty in our model set for blue-winged teal and we did not observe as much support for within-season variation in survival for this species. Female blue-winged teal DSR was best described by a constant model, but we found some support for a relationship between DSR and site and year (Table 3). According to the constant model, the estimated 71-day survival probability of blue-winged teal was 0.75 (85% CI = 0.69–0.82). Extrapolated to 93 days for comparison with female mallard breeding season survival estimates, female blue-winged teal survival according to the constant model was 0.69 (85% CI = 0.61–0.77). According to the second best model, which included only the effect of site and held 0.19% of the model weight, 71-day female survival was 0.81 (85% CI = 0.73–0.89) at REF and 0.71 (85% CI = 0.62–0.79) at TWF. Estimated 93-day survival according to this model was 0.76 (85% CI = 0.66–0.86) and 0.64 (85% CI = 0.54–0.73) at REF and TWF, respectively.

DISCUSSION

The motivation for our research was the concern that wind turbines may directly reduce survival probability of breeding females through collision with wind turbines. Collisions at TWF were uncommon. With the exception of high rates of avian collision at the Altamont Pass Wind Resource Area in California (Smallwood and Thelander 2008), other research suggests that avian collision mortality may be minor compared to other potential effects of wind farms (Leddy et al. 1999, Erickson et al. 2001, Arnett et al. 2007, Manville 2009, Loesch et al. 2013). Similarly, we observed no evidence that wind turbines at TWF directly reduced survival of breeding female mallards and blue-winged teal.

The use of telemetry allowed us to intensively study females throughout the breeding season and our capturing and monitoring techniques did not likely cause us to underestimate the number of collision mortalities. Although we nest-trapped approximately half of all mallards (n = 75 of 147) and all blue-winged teal (n = 163), 68.0% (51/75) and 59.5% (97/163) of nest-trapped mallards and blue-winged teal, respectively, failed at nesting. Of these failed nesters, we

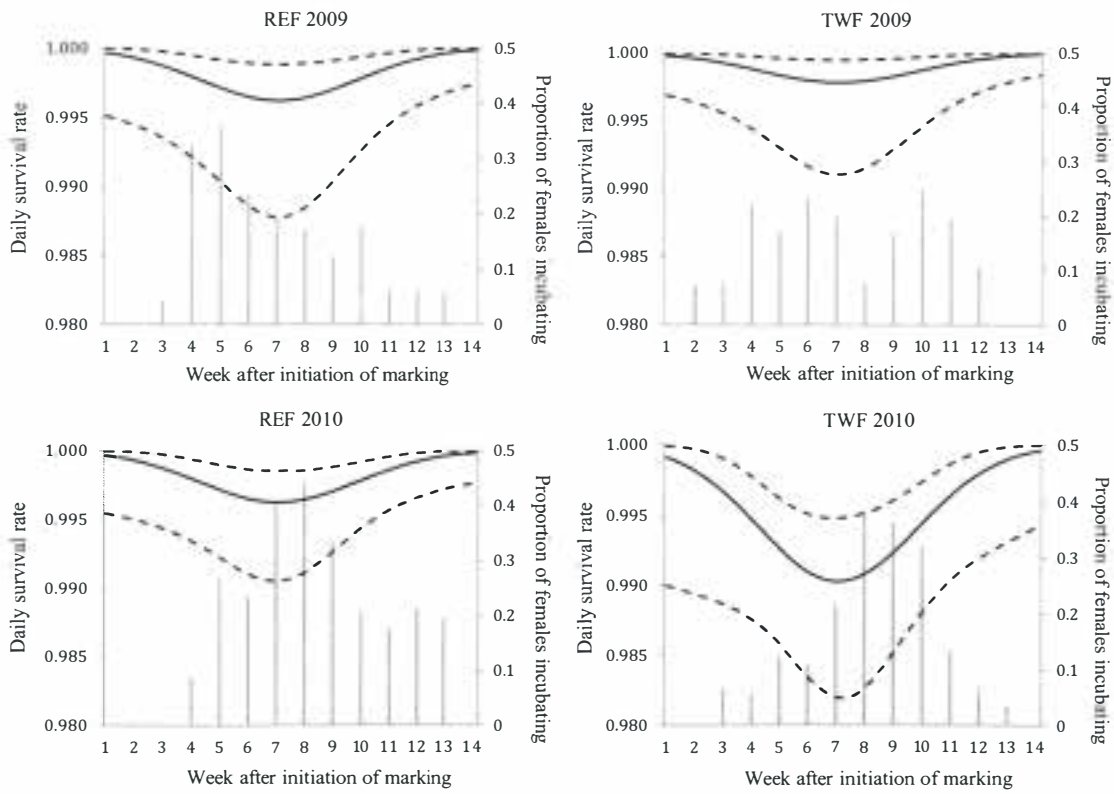

Figure 2. The relationship between within-season time trends as a quadratic (date + date^2) and daily survival rate (DSR; black line, primary y-axis) of female mallards at Tatanka Wind Farm (TWF) and the adjacent reference site (REF) in the Prairie Pothole Region of North and South Dakota, USA in 2009 and 2010. The estimates are predicted by the model: DSR = site × year + date + date^2. Dashed lines are 85% confidence limits. We include proportion of radio-marked females known to be incubating (gray bars, secondary y-axis) for each week of the 14-week study period (mid-Apr–mid-Jul) following the initiation of marking.

Table 3. Model selection results from analysis investigating female blue-winged teal daily survival rate (DSR) at the Tatanka Wind Farm (TWF) and adjacent reference site (REF) in the Prairie Pothole Region of North and South Dakota, USA. We modeled DSR as a function of year (2009 and 2010), site (TWF and REF), and time (date) within the breeding season. We modeled quadratic time trends (date + date^2) to investigate predictions about survival during 3 behavioral periods (pre-incubation, incubation, post-incubation) of female blue-winged teal. We selected the best model using Akaike's Information Criterion corrected for sample size (AIC_c). We report model weights (w_i), the number of parameters (K), and deviance for each DSR model.

DSR model	ΔAIC_c	w_i	K	Deviance
Constant	0.00	0.29	1	267.23
Site	0.84	0.19	2	266.07
Year	1.18	0.16	2	266.41
Site + date + date^2	2.23	0.10	4	263.46
Site + year	2.23	0.10	3	265.46
Year + date + date^2	2.35	0.09	4	263.57
Site × year	4.21	0.04	4	265.44
Site × year + date + date^2	5.37	0.02	6	262.59
Site × year + date	5.89	0.02	5	265.11

confirmed that 43.1% (22/51) of mallards and 38.1% (37/97) of blue-winged teal renested. Thus, we monitored a sample of females attending nests and females involved in courtship behavior throughout the breeding season. In addition, we located 95.7% (44/46) of all dead radio-marked females within 7 days of their last known live encounter. Scavenging predators in the PPR did not likely remove carcasses from beneath wind turbines within this time frame (see Johnson et al. 2002), which otherwise may have caused us to misclassify the cause of death. However, local landscape characteristics may influence collision risk (Drewitt and Langston 2006, De Lucas et al. 2008). High wetland densities at TWF taken together with habitat conditions during our study may have influenced the number of collisions. Wetlands at TWF and REF were >100% full for most of the spring during both years of our study. Wetland density and area are the primary habitat factors explaining female mallard distribution (Dwyer et al. 1979, Krapu et al. 1997). Waterfowl pair densities are positively related to wetland densities (Johnson and Grier 1988, Viljugrein et al. 2005) and breeding mallards establish smaller breeding territories when pair density is high (Titman 1983). Thus, females breeding at TWF may have encountered fewer turbines during our study than expected in years of average or below average precipitation.

Previous research suggests that collision risk may vary by species (Drewitt and Langston 2006). Species-specific collision risk is likely the result of an interaction between flight behavior and body size (Barrios and Rodrguez 2004, De Lucas et al. 2008). Blue-winged teal may be less susceptible to collisions than mallards because blue-winged teal have smaller home ranges (Dzubin 1955, Evans and Black 1956) and may spend less time in the rotor swept zone while flying among wetland and grassland nesting areas (Stewart 1977). This hypothesis is weakly supported by the fact that we observed no blue-winged teal collisions at TWF. Alternatively, we may not have observed any blue-winged teal collisions because we captured them while they had active nests. However, 63.6% (56/88) of nest-trapped blue-winged teal at TWF in both years failed at nesting, and although we certainly missed some nests (see McPherson et al. 2003), we confirmed that 41.1% (23/56) of those failed nesters initiated at least 1 more nest. Re-nesting female blue-winged teal re-engaged in courtship and pre-nesting behavior, which we hypothesized to be a period when females were most vulnerable to collisions with wind turbines.

Breeding season survival of female blue-winged teal in our study was similar to that reported by other researchers. For example, Garrettson and Rohwer (1998) reported survival of backpack harness and surgical implant radio-marked blue-winged teal during the 90-day breeding season in the Canadian prairie-parklands to be 60.6 (95% CI = ±28.4%) and 72.7 (95% CI = ±27.7%), respectively. Their estimates bound the extrapolated survival probability (i.e., DSR^{93}) estimated from the best-approximating blue-winged teal model in our study ($\hat{S}_{(.)} = 0.69$, 85% CI = 0.61–0.77). With the exception of comparatively low breeding season survival of mallards in 2010 at TWF, our mallard survival estimates were generally high, particularly at TWF in 2009. Nonetheless, our estimates were within the range of estimates reported previously. Brasher et al. (2006) estimated 90-day breeding season female mallard survival in the Canadian prairie-parklands to be 0.78 (SE = 0.025). Devries et al. (2003) observed a range of 90-day mallard breeding season survival estimates at 19 different sites in Canada's PPR between 0.62 (SE = 0.028) and 0.84 (SE = 0.018).

We suspected that survival estimates of mallards and blue-winged teal at both sites may have been inflated in 2009 because the probability of incorrectly assuming emigration might have been higher during that year. For example, we detected no mortalities during 1 telemetry flight in 2009 and 3 mallard mortalities during 5 telemetry flights in 2010. Interestingly, these mallard mortalities occurred at TWF. However, mallard survival estimates after censoring these 3 individuals were largely unaffected ($\hat{S}_{TWF\ 2009} = 0.90$, 85% CI = 0.79–0.98), $\hat{S}_{REF\ 2009} = 0.83$, 85% CI = 0.68–0.95), $\hat{S}_{TWF\ 2010} = 0.63$, 85% CI = 0.46–0.80), $\hat{S}_{REF\ 2010} = 0.83$, 85% CI = 0.71–0.94).

Several investigations have reported that survival of female ducks during the breeding season is lowest when females are nesting and are vulnerable to predators (Devries et al. 2003, Richkus et al. 2005, Arnold et al. 2012). Consistent with these findings, survival of female mallards at TWF and REF was lowest when a high proportion of radio-marked females were incubating nests (Fig. 2). Although we accrued only limited support for site-level variation in survival for blue-winged teal, we suspect that, at both sites, most mortalities of blue-winged teal occurred while females were incubating nests.

Given that most mortality appeared to be the result of depredation at REF and TWF, differences in survival between sites for both species may reflect site-specific differences in predator foraging efficiency. Estimated permanent disturbance of habitat at TWF from wind

turbine pads and access roads was 60.9 ac (M. Erickson, USFWS, personal communication), and disturbance of waterfowl nesting habitat may create a favorable scenario for mammalian predators (Johnson and Sargeant 1977, Clark and Nudds 1991). High predation of nesting females in altered landscapes may specifically result from preference of edge habitat as travel corridors by predators (Bider 1968, Larivière and Messier 2000, Phillips et al. 2003), changes in prey density (Larivière and Messier 1998), or decreased nesting cover (Duebbert 1969, Hines and Mitchell 1983, Guyn and Clark 1997). Schmitz and Clark (1999) attributed a negative relationship between survival probabilities of female ring-necked pheasants (*Phasianus colchicus*) and edge habitat density to any 1 or a combination of these factors. Although REF had less native and undisturbed grassland habitat (68.7%) than TWF (78.4%), wind turbine access roads and pads may have indirectly reduced female survival probability at TWF as well.

Changes in local predator community composition or predator abundance may also explain differences in survival between TWF and REF. Raptors are responsible for considerable female mortality in the PPR (Sargeant et al. 1993, Richkus et al. 2005). Disturbance at wind-developed landscapes may increase the abundance of raptor prey species (Morrison and Davis 1996, Thelander et al. 2003) and because TWF began operation in 2008, this may have been a mechanism of temporal differences in raptor abundances at TWF as well. Although we observed raptors foraging at TWF and REF in both years of our study, we have no evidence of a systematic difference in predator communities between sites or years. Long-term studies may be required to elucidate indirect effects of wind development infrastructure on breeding season survival of upland-nesting ducks.

Breeding season survival of female mallards, and presumably other upland-nesting ducks, varies spatially and temporally throughout their breeding ranges (Johnson et al. 1992, Devries et al. 2003). The spatial and temporal extent of our study needs to be considered when evaluating the compatibility of waterfowl conservation strategies and wind energy in the PPR. Nonetheless, breeding females occupying wetland and grassland habitat at TWF during our study rarely collided with wind turbines. Our study also raised some questions about the breeding ecology of upland-nesting ducks at wind-developed landscapes in the PPR. For example, what are the effects of wind turbines on the local composition and abundance of duck predator communities? Is the potential for collision mortality consistent among landscapes with different habitat composition, such as in areas with lower wetland densities or in years of below average precipitation? Answers to these questions would be useful to waterfowl managers given continued wind-energy development in the PPR.

MANAGEMENT IMPLICATIONS

Our results suggest that direct mortality of breeding female mallards and blue-winged teal due to collisions with wind turbines at TWF is probably of limited concern. Consistent with previous research, predation was the most influential mortality factor for female ducks during the breeding season at REF and TWF (Sargeant et al. 1984, Cowardin et al. 1985). Thus, conservation strategies that include protection of wetland and grassland habitat in wind-developed landscapes (see Kiesecker et al. 2011, Obermeyer et al. 2011, Fargione et al. 2012) will most likely not cause a direct reduction in survival of breeding females due to collisions with wind turbines.

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SUPPORTING INFORMATION

Additional supporting information may be found in the online version of this article at the publisher's web-site.

Table S1. Number of females and exposure days (in parentheses) included in the survival analysis by species (MALL, mallard; BWTE, blue-winged teal), site (Tatanka Wind Farm [TWF] or reference [REF]), and year (2009 or 2010).

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Research Article

Effect of Wind Energy Development on Breeding Duck Densities in the Prairie Pothole Region

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ABSTRACT Industrial wind energy production is a relatively new phenomenon in the Prairie Pothole Region and given the predicted future development, it has the potential to affect large land areas. The effects of wind energy development on breeding duck pair use of wetlands in proximity to wind turbines were unknown. During springs 2008–2010, we conducted surveys of breeding duck pairs for 5 species of dabbling ducks in 2 wind energy production sites (wind) and 2 paired reference sites (reference) without wind energy development located in the Missouri Coteau of North Dakota and South Dakota, USA. We conducted 10,338 wetland visits and observed 15,760 breeding duck pairs. Estimated densities of duck pairs on wetlands in wind sites were lower for 26 of 30 site, species, and year combinations and of these 16 had 95% credible intervals that did not overlap zero and resulted in a 4–56% reduction in breeding pairs. The negative median displacement observed in this study (21%) may influence the prioritization of grassland and wetland resources for conservation when existing decision support tools based on breeding-pair density are used. However, for the 2 wind study sites, priority was not reduced. We were unable to directly assess the potential for cumulative impacts and recommend long-term, large-scale waterfowl studies to reduce the uncertainty related to effects of broad-scale wind energy development on both abundance and demographic rates of breeding duck populations. In addition, continued dialogue between waterfowl conservation groups and wind energy developers is necessary to develop conservation strategies to mitigate potential negative effects of wind energy development on duck populations.

KEY WORDS *Anas discors*, *A. platyrhynchos*, blue-winged teal, breeding population, mallard, Prairie Pothole Region, wind energy development, wind turbines.

Millions of glaciated wetlands and expansive grasslands make the Prairie Pothole Region (PPR) the primary breeding area for North America's upland nesting ducks (Batt et al. 1989). Wetland and grassland loss in the PPR due to settlement and agriculture has been extensive (Dahl 1990, Mac et al. 1998), and conversion to agriculture continues to reduce available habitat for breeding waterfowl and other wetland- and grassland-dependent birds (Oslund et al. 2010, Claassen et al. 2011). During recent years, anthropogenic impacts in the PPR have expanded to include energy development (e.g., wind, oil, natural gas; see Copeland et al. 2011: table 2.1). From 2002 to 2011, industrial wind energy production has increased 1,158% (i.e., 769–9,670 MW), 205% during the past 5 years (United States Department of Energy [USDOE] 2011). Impacts from wind energy development including direct mortality from strikes and avoidance of wind towers and associated infrastructure have been widely documented for many avian species, including raptors, passerines, upland gamebirds, shorebirds, and waterfowl, as well as bats (Drewitt and Langston 2006; Arnett et al. 2007, 2008; Kuvlesky et al. 2007).

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Wetland habitats in the PPR annually attract and support >50% of the breeding waterfowl population in North America (Bellrose 1980). The productivity and subsequent use of prairie wetlands by breeding ducks in the PPR are critical for the maintenance of continental duck populations (Batt et al. 1989, van der Valk 1989). Because of the potential for extensive wind energy development (USDOE 2008, 2011, Kiesecker et al. 2011), understanding the potential effect of wind power development on the use of wetland habitat by breeding duck pairs in the region is critical.

The potential impacts of wind energy development on breeding ducks are similar to other wildlife reviewed in Kuvlesky et al. (2007). Breeding pairs may abandon otherwise suitable wetland habitat, display behavioral avoidance thereby reducing densities of pairs using wetlands near wind turbines, and experience mortality from collision with turbines and associated infrastructure. Additionally, indirect effects on breeding ducks potentially include avoidance of associated grassland by nesting females, increased predation, or reduced reproduction. Wind towers and supporting infrastructure generally do not directly affect the wetlands that provide habitat for breeding ducks. However, ducks are sensitive to many forms of disturbance (Dahlgren and Korschgen 1992, Madsen 1995, Larsen and Madsen 2000). Avoidance related to the presence of towers, movement of blades (e.g., shadow flicker), blade noise (Habib et al. 2007), infrastructure development including roads and transmission lines (Forman and Alexander 1998, Ingelfinger and Anderson 2004, Reijnen and Foppen 2006), and maintenance activities have been documented for other avian species and may similarly affect breeding pairs and reduce the use of wetlands within and adjacent to wind farms.

The presence of wind energy development in high density wetland and breeding pair habitat in the PPR is relatively recent, and previous studies of the effects of land-based wind development on waterfowl (*Anatidae*) have focused primarily on collision mortality (Winkelman 1990, Johnson et al. 2000, Gue 2012) and the effect of wind farms on foraging behavior of wintering and migrating waterfowl (Winkelman 1990, Larsen and Madsen 2000, Drewitt and Langston 2006, Kuvlesky et al. 2007, Stewart et al. 2007). Wind development appears to cause displacement of wintering or migrating Anseriformes, and bird abundance may decrease over time (Stewart et al. 2007). However, habituation has been reported for foraging pink-footed geese (*Anser brachyrhynchos*) during winter (Madsen and Boertmann 2008). Displacement of duck pairs due to wind development could affect population dynamics similar to habitat loss (Drewitt and Langston 2006, Kuvlesky et al. 2007). However, little information exists on how land-based wind development affects the settling patterns, distribution, and density of duck pairs during the breeding season.

The number and distribution of breeding duck pairs in the PPR is related to annual wetland and upland conditions (Johnson et al. 1992; Austin 2002; Reynolds et al. 2006, 2007; U.S. Fish and Wildlife Service [USFWS] 2012). Wetland conditions in the PPR vary both spatially and temporally (Niemuth et al. 2010) and during dry years in the PPR, waterfowl are displaced to lesser quality habitats farther north (USFWS 2012) where productivity is generally reduced (Bellrose 1980). The long-term sustainability of breeding duck populations is dependent on availability and use of productive wetlands in the PPR that provide local breeding pair habitat when they are wet (Johnson and Grier 1988). Avoidance of wetlands near wind energy development by breeding ducks on otherwise suitable wetland habitat may result in displacement to lesser quality habitats similar to the effect of displacement during dry years. Given the relatively large development footprint (i.e., unit area/GW) for energy produced from wind relative to other energy sources such as coal (e.g., 7.4 times; wind = 72.1 km^2/TW-hr/yr, coal = 9.7 km^2/TW-hr/yr; McDonald et al. 2009) and the projected growth of the industry (USDOE 2008), a relatively large land area and subsequently a large number of wetlands and associated duck pairs in the PPR can potentially be affected.

We assessed the potential effects of wind energy development and operation on the density of 5 common species of breeding ducks in the PPR of North Dakota and South Dakota: blue-winged teal (*Anas discors*), gadwall (*A. strepera*), mallard (*A. platyrhynchos*), northern pintail (*A. acuta*), and northern shoveler (*A. clypeata*). Our objective was to determine whether the expected density of breeding duck pairs differed between wetlands located within land-based wind energy production sites (hereafter wind sites) and wetlands located within paired sites of similar wetland and upland composition without wind development (hereafter reference sites). We predicted that if disturbance due to wind energy development caused avoidance of wetlands by breeding duck pairs, then expected density of breeding pairs would be lower on wind energy development sites. We interpreted differences in estimated breeding pair densities between paired wind energy development sites and reference sites in the context of the current Prairie Pothole Joint Venture (PPJV) waterfowl conservation strategy for the United States PPR (Ringelman 2005).

STUDY AREA

We selected operational wind energy and paired reference sites as a function of the geographic location, the local wetland community and its potential to attract breeding pairs (i.e., ≥40 pairs/km^2; Reynolds et al. 2006), and wetland conditions. In 2008, 11 wind farms were operational in the PPR of North and South Dakota, USA. Of those, only 3 were located in areas with the potential to attract relatively large numbers of breeding duck pairs for the 5 species in this study (Loesch et al. 2012, OpenEnergyInfo 2012). We identified 2 existing wind energy production sites in the Missouri Coteau physiographic region (Bluemle 1991) of south-central North Dakota, USA, and north-central South Dakota, USA (Fig. 1). Both wind sites contained wetland communities with the potential to attract an estimated 46 breeding duck pairs/km^2 (mean density = 8.5 pairs/km^2 for the PPR; Reynolds et al. 2006, Loesch et al. 2012). The Kulm-Edgeley (KE) wind energy development consisted of 41 towers in a cropland-dominated landscape (e.g., 83% of

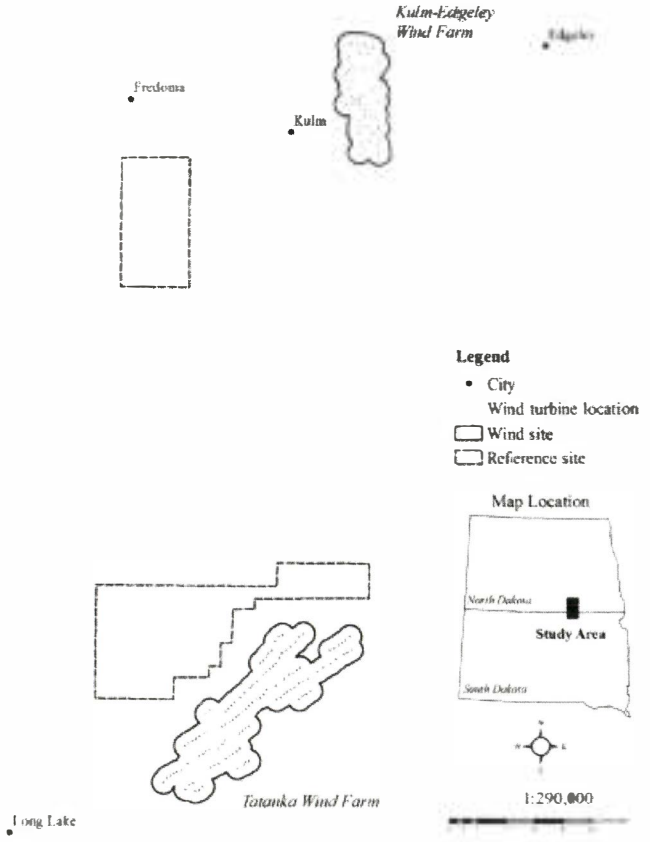

Figure 1. Paired study sites with and without wind energy development surveyed for breeding waterfowl pairs in North Dakota and South Dakota, USA, 2008–2010.

uplands were cropland; Table 1) and was located 3.2 km east of Kulm, North Dakota, USA. The Tatanka (TAT) wind energy development, consisted of 120 towers in a perennial cover-dominated landscape (e.g., 92% of uplands were perennial cover; native grassland, idle planted tame grass, alfalfa hay; Table 1) and was located 9.7 km northeast of Long Lake, South Dakota, USA. The KE site began operation in 2003; approximately 50% of the TAT towers were operational by 28 April 2008 and all were operational by 21 May 2008. Turbine locations were on-screen digitized using ESRI ArcGIS 9.2 software (ArcGIS Version 9.2, Environmental Systems Research Institute, Redlands, CA) and United States Department of Agriculture National Aerial Imagery Program (NAIP) imagery (ca. 2007).

The potential zone of influence for breeding waterfowl from a wind turbine to a wetland during the breeding season is unknown. The limited research that has been conducted to measure displacement of birds in grassland landscapes has primarily targeted migratory grassland passerines, and has identified relatively short (e.g., 80–400 m) distances (Leddy et al. 1999, Johnson et al. 2000, Shaffer and Johnson 2008, Pearce-Higgins et al. 2009). Compared to grassland passerines, waterfowl have relatively large breeding territories and mallards use multiple wetlands within their home range (e.g., 10.36 km^2 generalized to a circle based on a 1,608 m radius; Cowardin et al. 1988). Because the objective of this study was to test the potential effects of wind energy development on breeding duck pair density and not to identify a potential zone of influence, we chose a buffer size with the objective to spatially position sample wetlands in proximity to 1 or many turbines where a potential effect of wind energy development would likely be measurable. Consequently, we used the generalized home range of a mallard hen and buffered each wind turbine by 804 m (i.e., half the radius of a circular mallard home range; Cowardin et al. 1988), to ensure overlap of breeding territories with nearby wind turbines. The wind sites contained different numbers of turbines and as a result the sites were not equally sized (KE wind site = 2,893 ha; TAT wind site = 6,875 ha; Fig. 1).

We derived wetland boundaries from digital USFWS National Wetlands Inventory (NWI) data. We post-processed NWI wetlands to a basin classification (Cowardin et al. 1995, Johnson and Higgins 1997) where we combined complex wetlands (i.e., multiple polygons describing a basin) into a single basin and then classified them to the most permanent water regime (Cowardin et al. 1979). Wetlands partially or completely within the buffer areas were considered treatment wetlands.

For each of the 2 wind sites, we employed a rule-based process to select paired sites to control for differences in wetland and landscape characteristics among sites. We first

Table 1. Characteristics of wetland (i.e., number, area [ha], % of total wetland area) and upland (i.e., area [ha], % of total upland area) areas in development (wind) and paired reference sites in North Dakota and South Dakota, USA, where we surveyed wetlands for breeding duck pairs during spring 2008, 2009, and 2010. Sites included Kulm-Edgely (KE) and Tatanka (TAT) Wind Farms.

	KE wind			KE reference			TAT wind			TAT reference		
Class	Number	Area	%	Number	Area	%	Number	Area	%	Number	Area	%
Wetland												
Temporary	272	41.4	9	283	41.7	7	362	29.9	3	462	97.3	8
Seasonal	372	167.2	37	240	347.3	55	917	253.5	29	815	419.9	36
Semi-permanent	37	239.5	53	37	242.9	38	322	581.7	67	231	636.5	55
Total	681	448.1		560	631.9		1,601	865.0		1,508	1,153.7	
Upland												
Perennial cover[a]		416.3	16		1,324.4	37		5,428.4	92		6,039.7	85
Cropland		2,120.5	83		2,232.8	63		455.3	8		1,064.1	15
Other		6.6	<1		13.4	<1		18.3	<1		11.4	<1
Total		2,543			3,570.6			5,902.1			7,115.2	

[a] Includes native grassland, undisturbed grassland, and alfalfa hay landcover classes.

considered physiographic region and proximity to wind sites when identifying potential reference sites. To reduce the potential for environmental variation, especially wetness (Niemuth et al. 2010), between wind and reference sites, we only considered sites <25 km from the nearest turbine and within the Missouri Coteau physiographic region. Additionally, we assumed that wetlands >2.5 km from the nearest turbine were beyond a potential zone of influence. Using the distance and physiographic region criteria, we identified 3 potential reference sites of similar size for each wind site based on upland land use (i.e., proportion of cropland and perennial cover) and wetland density. For the 6 potential sites, we compared the wetland number and area (ha) for each class (i.e., temporary, seasonal, semi-permanent) between each potential reference site and the respective wind site to select the most similar reference site (Table 1). The KE reference site was located 11.3 km west of the KE wind site and the TAT reference site was located 3.2 km northwest of the TAT wind site (Fig. 1).

We identified 5,146 wetland basins encompassing 3,410 ha from NWI data within the wind and reference sites and considered each wetland a potential sample basin. Only temporary, seasonal, and semi-permanent basins were present at the wind sites so we did not survey lake wetlands at reference sites. We did not survey basins that extended >402 m from the boundary of a site to eliminate linear wetlands that potentially extended long distances from the wind and reference sites.

METHODS

Surveys

We surveyed sample wetlands during spring 2008, 2009, and 2010 to count local breeding duck pairs. We used 2 survey periods (i.e., 28 April–18 May, early; and 21 May–7 June, late) to account for differences in settling patterns for the 5 species (Stewart and Kantrud 1973, Cowardin et al. 1995) and to reduce potential bias associated with differences in breeding chronology among species (Dzubin 1969, Higgins et al. 1992, Naugle et al. 2000). We divided the wind and reference sites into 3 crew areas to spatially distribute survey effort across the sites, and crews of 2 observers conducted surveys on each of the 3 crew areas daily. The detection probability of duck pairs was likely not equal among observers (Pagano and Arnold 2009) and we minimized potential confounding of detection, observer, and survey area by rotating observers among crew areas and partners daily. Additionally, our analytical approach was not to compare population estimates for wind and reference sites, which may require development of correction factors (Brasher et al. 2002, Pagano and Arnold 2009), but rather to compare expected rates of pair abundance. Consequently, we assumed non-detection of ducks to be equal among all sites.

We surveyed wetlands within each crew area in a 2.59-km grid pattern based on public land survey sections (PLSS). We used maps with NAIP imagery and wetland basin perimeters from NWI to assist orientation and navigation to survey wetlands. Permission, accessibility, wetness, numbers of wetlands, size of wetlands, and numbers of birds affected the rate at which we surveyed PLSS. Surveys began at 0800 hours and continued until 1700 hours and were discontinued during steady rainfall or winds exceeding 48 km/hr. We surveyed most wetlands twice each year, once during each survey period. We visited all sample wetlands during the early survey period. We did not revisit wetlands that were dry during the early survey. Annual changes in access permission and wetland conditions due to precipitation resulted in some basins being surveyed during only 1 of the survey periods.

During the breeding season, waterfowl assemble into various social groupings that are influenced by sex ratios, breeding phenology, and daily activities (Dzubin 1969). We counted social groups of the 5 target species using established survey protocols (Hammond 1969, Higgins et al. 1992, Cowardin et al. 1995, Reynolds et al. 2006) and recorded observations for all sample wetlands that contained surface water regardless of whether birds were present or absent. We summarized field observations into 7 social groupings that we subsequently interpreted to determine the number of indicated breeding pairs for each species, basin, and survey period (Dzubin 1969, Cowardin et al. 1995). On average, the first count period (late April–early May) is regarded as an acceptable approximation of the breeding population for mallard and northern pintail (Cowardin et al. 1995, Reynolds et al. 2006). Consequently, we used observations during the early survey period to determine the number of indicated breeding pairs for mallard and northern pintail. Similarly, the second count period (late May–early June) is generally used to approximate the breeding population of blue-winged teal, gadwall, and northern shoveler (Cowardin et al. 1995, Reynolds et al. 2006) and we used observations during the late survey period to determine the number of indicated breeding pairs for these 3 species. We used indicated breeding pairs as the response variable in our models of estimated duck pairs.

We reduced disturbance during surveys by observing wetlands from 1 or more distant, strategic positions. We approached and surveyed portions of basins that were obscured by terrain or vegetation on foot. We noted birds leaving the wetland because of observer disturbance to minimize recounting on wetlands that we had not yet surveyed. We estimated the proportion of the wetland that was wet by visually comparing the surface water present in the basin relative to the wetland extent displayed on the field map. We recorded basins with no surface water as dry and not surveyed.

We used NAIP (ca. 2009) and on-screen photo-interpretation to develop a categorical variable describing the landcover of uplands (i.e., cropland, native grassland, idle planted tame grass, alfalfa hayland) adjacent to or surrounding all wetlands on the wind and reference sites. For wetlands touching multiple upland landcover classes, we assigned the class based on the largest wetland perimeter length. The exception was for idle planted tame grass, where we assigned the class if it touched any length of a wetland perimeter because of the limited presence of this class in

the landscape and its positive influence on pair settling densities (Reynolds et al. 2007).

Data Analysis

The objective of our analysis was to compare estimates of expected wetland-level abundance of breeding pairs on the wind and reference sites among years. We used past analyses of breeding duck pairs in the United States PPR and their relationship to wetland and upland parameters to inform the selection of candidate covariates (Cowardin et al. 1988, 1995; Reynolds et al. 1996). Wetland-level covariates included wetland class (i.e., seasonal, semi-permanent, or temporary; Johnson and Higgins 1997), surface area of water in NWI basin (wet area), and square root (sqrt) of wet area to reflect the non-linear response to wetland area demonstrated by breeding ducks in the PPR (Cowardin et al. 1988, 1995; Reynolds et al. 2006). We used a categorical variable for upland landcover (i.e., perennial cover, cropland) adjacent to the wetland for the only upland covariate (Reynolds et al. 2007).

Generalized linear models with Poisson errors provided an appropriate statistical framework for the analysis (McCullagh and Nelder 1989, McDonald et al. 2000). Preliminary summaries of the breeding pair data showed, however, that all 5 species displayed indications of over-dispersion relative to standard Poisson assumptions (i.e., both excess zeros and infrequent large counts; Appendix A, available online at www.onlinelibrary.wiley.com; Zuur et al. 2007). We addressed these challenges, while maintain an approach consistent with past studies by conducting a 2-stage analysis. We began by selecting appropriate models and subsets of the covariates using a likelihood-based approach. Then we used a simulation-based Bayesian approach to estimate parameters of species-specific statistical models, site- and year-level contrasts between wind and reference sites, and lack-of-fit statistics. Our combined approach allowed us to take advantage of the strengths of both approaches (Royle and Dorazio 2008:74–75) to provide a thorough analysis of the data.

We analyzed indicated breeding pairs from counts for each of the 5 study species using separate models. Full Poisson regression models described expected breeding pairs as a log-linear function of site, year, wetland class, landcover, wet area, and sqrt (wet area). We used Akaike's Information Criterion (AIC) differences (Burnham and Anderson 2002) to compare full Poisson models with Zero-Inflated Poisson (ZIP) models. The ZIP models partially accounted for potential excess zeros due to 2 sources: 1) non-detections and 2) unoccupied, but suitable, wetlands. The ZIP models described the data as a mixture of the counts described by the log-linear model and a mass of excess zeros described by a logit-linear model (Zuur et al. 2007). We conducted a comparison of Poisson and ZIP models between the full Poisson model and ZIP model that included a single additional parameter describing the expected probability of a false zero. When AIC differences indicated the ZIP model was more appropriate (i.e., $AIC_{Poisson} - AIC_{ZIP} \geq 4$), we used ZIP models for all subsequent analysis. When ZIP models were selected, the full logit-linear model for excess zeros included covariates describing the upland vegetation cover class associated with each wetland (cover class; Stewart and Kantrud 1973), the area of the NWI basin covered by water (wet area), and the square root of wet area.

We expected that the full models would likely be most appropriate for the study species, as they were parameterized with covariates that have been identified as useful predictors of pair abundance in the Four-Square-Mile Breeding Waterfowl Survey (FSMS) dataset, which has been collected by the USFWS National Wildlife Refuge System since 1987 (Cowardin et al. 1995; Reynolds et al. 2006, 2007). Nonetheless, we sought to efficiently use the information in our less-extensive dataset by ensuring that we had selected a parsimonious subset of the covariates for each species-specific model. We removed a single covariate, or group of covariates in the case of factor variables, from the full model, ran the resulting reduced model, and recorded its AIC value (Chambers 1992, Crawley 2007:327–329). We repeated this procedure for every covariate. This resulted in a vector of AIC values that described, for each covariate, or covariate group, the effect of its removal on the AIC value of the full model. Reduced models for each species contained the set of covariates in the full model or the subset of covariates that resulted in increases in AIC values greater than 2 units per estimated parameter when they were removed from the full model (Arnold 2010).

After selecting a model structure for each species, we estimated the posterior distributions of model parameters with Markov Chain Monte Carlo (MCMC) simulation (Link and Barker 2009) in the Bayesian analysis software WinBUGS 1.4.1 (Spiegelhalter et al., 2003). The structure of the Bayesian ZIP models differed from the maximum likelihood models in 2 ways. The 12 site and year combinations were hierarchically centered and parameterized as normally distributed displacements from a common intercept (Gelman et al. 2004, Congdon 2005), and extra-Poisson variation due to large wetland-level counts was accommodated by a normally distributed error term (Appendix B, available online at www.onlinelibrary.wiley.com).

We conducted all statistical analyses in the R environment (R Development Core Team 2011). We used the generalized linear models capability of base R and the contributed package pscl (Jackman 2008) to estimate likelihoods and AIC values for Poisson and ZIP models. When selecting models and subsets of the covariates, we considered AIC differences greater than 4 to provide good evidence in favor of the model with the smaller value (Burnham and Anderson 2002). To generate Bayesian estimates of model parameters, we used the contributed R2WinBugs (Sturtz et al. 2005) package to run MCMC simulations in WinBUGS via R. For each model, we ran 2 Markov chains for 500,000 iterations and discarded the first 100,000 iterations from each chain to minimize the influence of starting values and prior distributions. We used minimally informative prior distributions and random starting values for model parameters and random effects. We evaluated convergence to the posterior distribution by examining plots of sequential draws for

each parameter and also by the Gelman–Rubin statistic (Gelman et al. 2004). We estimated the number of uncorrelated samples generated by each Markov Chain by the Effective Sample Size (ESS; Kass et al. 1998, Streftaris and Worton 2008). We required at least 200 uncorrelated samples per chain for inference. We considered a model to have converged when its Gelman–Rubin statistic was <1.1 and the plots of sequential draws indicated that the chains had stabilized and were sampling from a similar space (Gelman et al. 2004). We tested for lack-of-fit of the model using a posterior predictive test (Gelman et al. 2004). Specifically, we compared the variance-mean ratio for the observed data to the variance-mean ratio of simulated data generated from the posterior draws of model parameters. We concluded that the model fit the data if the posterior proportion of simulated variance-mean ratios that exceeded the observed variance-mean ratio was greater than 0.01 and less than 0.99 (Congdon 2005). We then used the CODA (Plummer et al. 2009) package to summarize the posterior distributions of model parameters, convergence diagnostics, and derived quantities like lack-of-fit statistics and back-transformed estimates of abundance. Using the 800,000 posterior simulations from each model, modal values of categorical covariates, and median values of continuous covariates, we calculated species-, site-, and year-specific medians and 95% credible intervals of 1) the estimated posterior distribution of the log-scale model parameters, 2) the estimated posterior distribution of expected pair abundance on wetlands of median area, and 3) the estimated posterior distribution of the back-transformed contrast in expected pair abundance between wind and reference sites in each year. These quantities provided the basis for comparison of pair abundance between wind and reference sites.

We used point estimates of pair density for the median seasonal wetlands size (i.e., 0.2 ha) in grassland to assess the potential effect of wind energy development on breeding duck pair densities. We selected seasonal wetlands because they were the most numerous wetlands in our sample (58%) and because breeding duck pairs use seasonal wetlands at greater rates than other wetland classes (see Reynolds et al. 2006, 2007; Loesch et al. 2012); most pairs (54%) were observed on seasonal wetlands.

We evaluated the potential impact of wind energy development from both a statistical and biological perspective. We compared point estimates of density among sites and within years to either support or reject an effect. We assessed the potential biological impact of breeding pair avoidance of wind sites by calculating the proportional change in the estimated density of pairs between wetlands in wind and reference sites for each species and year. The percent change reflects the potential impact to breeding duck populations in the presence of wind energy development.

RESULTS

As a result of variable wetland conditions both within and among years, and annual changes in access to private land, we surveyed different numbers and area of wetland basins each year. Water levels in wetlands were low during 2008 and 35% of wetland basins visited during the early count contained water and generally were only partially full (e.g., seasonal regime, mean = 54% full, n = 684). Water levels increased in 2009 and 2010 and only 15% of 2,464 and 12% of 3,309 wetland basins, respectively, were dry during the early count. Basins containing water were also more full during 2009 (e.g., seasonal basin mean = 103% full, n = 1,089) and 2010 (e.g., seasonal basin mean = 93% full, n = 1,407). We conducted 5,339 wetland visits during the early count and 4,999 wetland visits during the late count. During the early count, we observed 5,287 indicated breeding pairs of mallard (3,456 [range = 146–552]) and northern pintail (1,831 [range = 51–310]), and 10,473 indicated breeding pairs of blue-winged teal (5,886 [range = 180–984]), gadwall (2,839 [range = 75–506]), and northern shoveler (1,748 [range = 55–318]) during the late count.

Model Selection and Estimation

Our ZIP models provided a substantially better fit than Poisson models for every species. Differences in AIC ($AIC_{poisson} - AIC_{zip}$) were 426 for blue-winged teal, 137 for gadwall, 218 for mallard, 384 for northern pintail, and 78 for northern shoveler. All of the covariates in the full model were retained for mallard, northern pintail, blue-winged teal, and northern shoveler. Wetland class was dropped for gadwall. Differences in AIC between the full model and the nearest reduced model were 11 for blue-winged teal, 3 for gadwall, 26 for mallard, 6 for northern pintail, and 29 for northern shoveler. The MCMC simulations converged for every species-specific model, indicating that the parameter estimates and credible intervals from these models provided a sound basis for inference. The maximum upper 95% credible interval of all R-hat values for any structural parameter was 1.01 for blue-winged teal, 1.01 for gadwall, 1.01 for mallard, 1.02 for northern pintail, and 1.04 for northern shoveler. The posterior predictive test indicated that the models fit the data for every species. The proportion of simulated variance-mean ratios that exceeded the observed variance-mean ratio was 0.52 for blue-winged teal, 0.75 for gadwall, 0.61 for mallard, 0.59 for northern pintail, and 0.72 for northern shoveler. Minimum effective sample sizes were 709 for blue-winged teal, 553 for gadwall, 307 for mallard, 346 for northern pintail, and 612 for northern shoveler.

Estimates

Differences in estimated breeding duck pair densities in a wind site and a reference site varied among site pairs (2), years (3), and species (5), and posterior median values of these 30 contrasts ranged from −0.281 to 0.130 (Table 2). Estimated patterns of contrasts for expected breeding duck pair density between wind and reference sites were similar for all species. Given median wet area and the mode of the categorical covariates, expected, basin-level densities of duck pairs for the 5 species was either statistically indistinguishable (14 of 30) between wind and reference sites or was lower (16 of 30) on wind sites than reference sites depending on site, year, and species (Fig. 2). Regardless of whether 95% credible intervals overlapped zero, density estimates were

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Table 2. Log-scale estimated posterior medians and 95% of the estimated posterior distribution from the count portion of a zero-inflated, overdispersed Poisson model of indicated blue-winged teal (*Anas discors* [BWTE]), gadwall (*A. strepera* [GADW]), mallard (*A. platyrhynchos* [MALL]), northern pintail (*A. acuta* [NOPI]), and northern shoveler (*A. clypeata* [NSHO]) pairs on seasonal wetland basins for development (wind) and paired reference sites in North Dakota and South Dakota, USA. Sites are Kulm-Edgely (KE) and Tatanka (TAT) for years 2008 (08), 2009 (09), and 2010 (10).

			Reference			Wind		
Species	Site	Year	Median	2.5%	97.5%	Median	2.5%	97.5%
MALL	KE	08	0.47	0.21	0.73	0.15	−0.13	0.43
	KE	09	−0.49	−0.78	−0.22	−0.90	−1.17	−0.64
	KE	10	−0.42	−0.66	−0.20	−0.77	−1.04	−0.51
	TAT	08	0.29	0.02	0.56	0.41	0.17	0.65
	TAT	09	−0.38	−0.61	−0.14	−0.63	−0.89	−0.38
	TAT	10	−0.33	−0.55	−0.10	−0.47	−0.71	−0.22
BWTE	KE	08	−0.13	−0.25	−0.00	0.22	0.01	0.45
	KE	09	−0.46	−0.66	−0.27	−0.52	−0.74	−0.32
	KE	10	−0.13	−0.30	0.04	−0.58	−0.78	−0.39
	TAT	08	0.25	0.06	0.45	0.18	0.01	0.36
	TAT	09	−0.15	−0.32	0.02	−0.39	−0.58	−0.21
	TAT	10	0.03	−0.12	0.19	−0.19	−0.36	−0.02
NOPI	KE	08	−0.25	−0.61	0.12	−0.80	−1.24	−0.39
	KE	09	−0.80	−1.16	−0.45	−1.54	−1.93	−1.17
	KE	10	−0.72	−1.01	−0.42	−1.20	−1.56	−0.87
	TAT	08	−0.10	−0.46	0.27	0.16	−0.15	0.48
	TAT	09	−0.35	−0.63	−0.06	−0.76	−1.07	−0.44
	TAT	10	−0.15	−0.41	0.13	−0.38	−0.67	−0.07
GADW	KE	08	0.09	−0.17	0.37	−0.13	−0.43	0.18
	KE	09	−0.52	−0.77	−0.28	−0.91	−1.19	−0.64
	KE	10	−0.61	−0.83	−0.38	−1.42	−1.72	−1.14
	TAT	08	0.07	−0.18	0.34	0.17	−0.05	0.41
	TAT	09	−0.46	−0.69	−0.22	−0.55	−0.81	−0.29
	TAT	10	−0.69	−0.92	−0.46	−0.62	−0.86	−0.38
NSHO	KE	08	−0.35	−0.61	−0.08	−0.49	−0.79	−0.18
	KE	09	−0.91	−1.17	−0.67	−1.00	−1.29	−0.73
	KE	10	−0.78	−1.00	−0.57	−1.11	−1.39	−0.85
	TAT	08	−0.23	−0.49	0.00	−0.30	−0.52	−0.08
	TAT	09	−0.59	−0.80	−0.37	−0.99	−1.25	−0.74
	TAT	10	−0.36	−0.55	−0.16	−0.69	−0.90	−0.47

lower on sites with wind development for 26 of the 30 combinations (i.e., mallard and blue-winged teal: 12 combinations, 11 negative [range −6% to −36%]), 7 did not overlap zero; gadwall, northern pintail, northern shoveler: 18 combinations, 15 negative [range −5% to −56%], 9 did not overlap zero). The general pattern of results were similar for all species, consequently, we chose a representative early and late arriving species with the largest number of indicated breeding pairs, mallard and blue-winged teal, respectively, for detailed presentation of results.

Mallard and Blue-Winged Teal

Mallard and blue-winged teal comprised 59% of the indicated breeding pair observations (i.e., 3,473 mallard; 5,928 blue-winged teal). Full models were retained for both mallard and blue-winged teal, and the point estimate of density was greatest in 2008 for both KE and TAT sites, but varied among years and sites (mallard: wind median = 0.42 [range = 0.30–1.03], reference median = 0.41 [range = 0.21–0.97]; blue-winged teal: wind median = 0.51 [range = 0.42–0.94], reference median = 0.66 [range = 0.47–0.96]). For mallard, estimated breeding pair densities on seasonal wetlands at wind sites were lower for 5 of the 6 site-year combinations (median = 0.11, range = −0.28 to 0.11) and error bars representing 95% of the posterior distribution of the estimate did not overlap zero for 4 of the 6 site-year comparisons (Fig. 2A). Similarly, for blue-winged teal in 5 of the 6 site-year combinations, estimated pair densities were lower for seasonal wetlands on wind sites (median = −0.14, range = −0.24 to <0.01) and error bars representing 95% of the posterior distribution of the estimate did not overlap zero for 3 of the 6 site-year comparisons (Fig. 2B). Only 1 site-year combination for each of mallard and blue-winged teal suggested greater pair densities on wind sites, but in both cases 95% confidence intervals overlapped zero.

The estimated proportional change of mallard pair densities for wetlands in wind sites was negative in 5 of 6 site-year combinations (median = −10%, range = 13% [TAT 2008] to −34% [KE 2009]; Fig. 3A). The proportional change for blue-winged teal was also negative in 5 of 6 site-year combinations (Fig. 3B). The median estimate of proportional change for blue-winged teal densities between wind and reference sites was −18% (range 0% [KE 2009] to −36% [KE 2010]).

DISCUSSION

All 5 of our dabbling duck study species demonstrated a negative response to wind energy development and the reduced abundance we observed was consistent with behavioral avoidance. Avoidance of land-based wind energy development has been observed for numerous avian species during

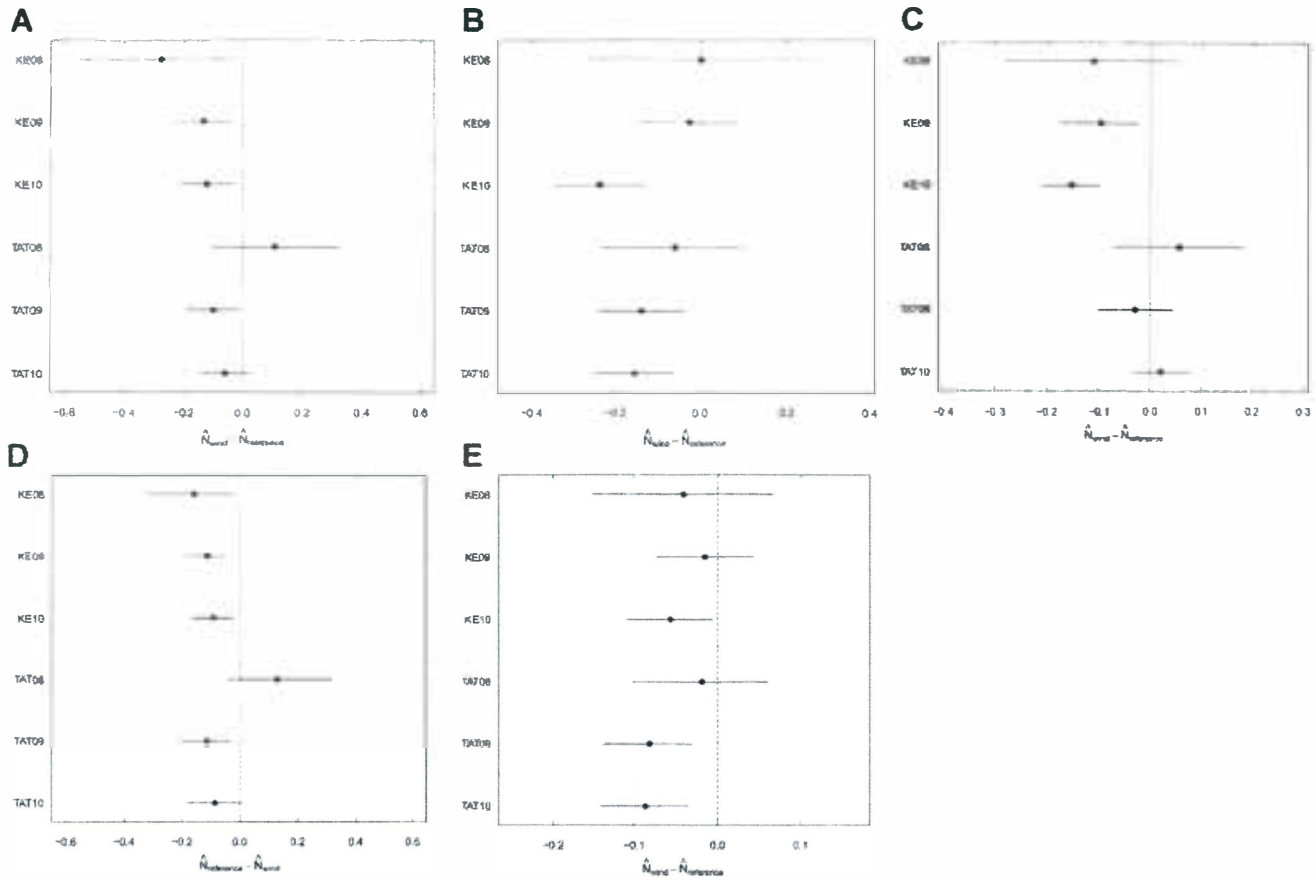

Figure 2. Year-specific estimated differences between estimated posterior median abundance of mallard (*Anas platyrhynchos*; A), blue-winged teal (*A. discors*; B), gadwall (*A. strepera*; C), northern pintail (*A. acuta*; D), and northern shoveler (*A. clypeata*; E) on a seasonal wetland of median area (0.2 ha) embedded in perennial cover on a wind site and its corresponding reference site in North Dakota and South Dakota. Error bars represent 95% of the posterior distribution of the estimate. Site-year combinations are Kulm-Edgely (KE) and Tatanka (TAT) for 2008 (08), 2009 (09), and 2010 (10).

breeding (Leddy et al. 1999, Johnson et al. 2000, Walker et al. 2005, Shaffer and Johnson 2008, see Madders and Whitfield 2006), and does not imply complete abandonment of an area but rather the reduced use of a site (Schneider et al. 2003). This is consistent with our results, where breeding pairs continued to use wetland habitat at the wind sites but at reduced densities.

Our selection of paired wind and reference sites and analytical approach were designed to control for differences in site characteristics and annual variation in habitat conditions, and to use well-understood relationships between breeding duck pairs and wetlands (Cowardin et al. 1995; Reynolds et al. 2006, 2007). Despite the large amount of breeding pair data we collected, discerning if the presence of wind energy development was the ultimate cause of the lower estimated pair abundance on the wind versus reference sites is difficult. However, we did detect a directional effect of wind energy development sites over a 3-year period at the 2 sites that are representative of areas with greater estimated duck densities, and adds to the body of evidence suggesting a negative effect of wind energy development. Reduced wetland use in high density wetland areas with the potential to attract and support relatively greater densities of breeding duck pairs is of concern to waterfowl biologists and managers because when wet, these areas are vital to the sustainability of North American duck populations. The somewhat limited temporal and geographic scope of our study and confounding between land use and duration of development prevents us from drawing strong conclusions about cumulative effects of wind energy development on breeding ducks (see Krausman 2011). Nonetheless, a 10–18% reduction in addition to other stressors is potentially substantial.

We observed larger negative displacement for most species and years in the KE wind site when compared to the TAT wind site. We found 2 notable differences in the wind sites that may have contributed to these results, the land use and age of development. The KE site was predominantly cropland and older than the grassland-dominated TAT site. The combination of multiple stressors, in this case agriculture and wind energy development, may have resulted in a greater impact to breeding ducks using wetlands in agricultural settings. Differences in estimated pair abundance between the cropland and grassland site suggest that greater habitat quality measured by the percent of grassland area and lack of cropping history in associated wetlands within a site may reduce avoidance of wind development when compared to agricultural landscapes. Breeding waterfowl may occupy wetlands at greater rates in grassland than cropland (Reynolds et al. 2007), nest success is generally greater in grasslands (Greenwood et al. 1995, Reynolds et al. 2001, Stephens et al.

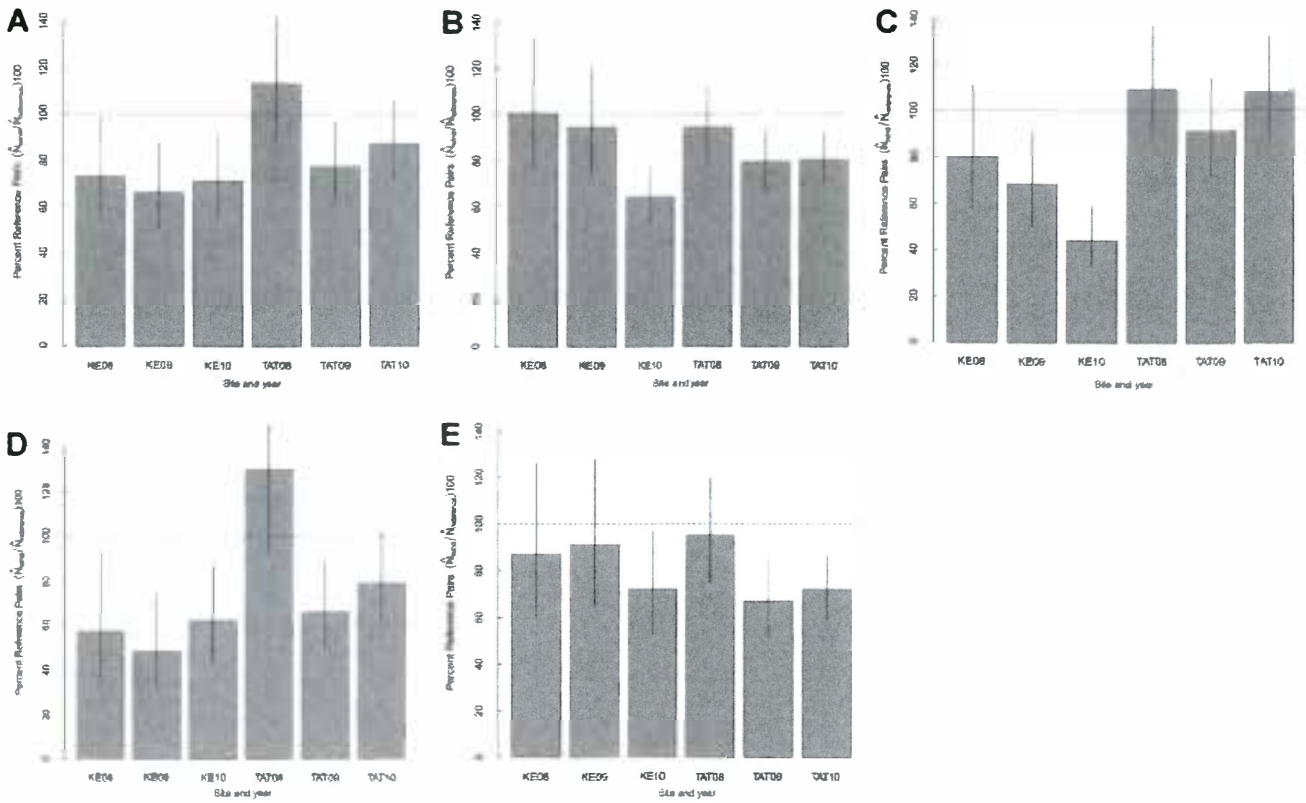

Figure 3. Year-specific estimated number of mallard (*Anas platyrhynchos*; A), blue-winged teal (*A. discors*; B), gadwall (*A. strepera*; C), northern pintail (*A. acuta*; D), and northern shoveler (*A. clypeata*; E) on a seasonal wetland of median area (0.2 ha) embedded in perennial cover on a wind site expressed as a percentage of pairs expected on the same wetland in the corresponding reference site in North Dakota and South Dakota. Error bars represent 95% of the posterior distribution of the estimate. Site-year combinations are Kulm-Edgely (KE) and Tatanka (TAT) for 2008 (08), 2009 (09), and 2010 (10).

2005), and wetlands in grass landscapes have greater occupancy rates by duck broods (Walker 2011), suggesting an overall greater productivity potential for breeding ducks in grassland versus cropland landscapes. The ability of intact habitat to reduce impacts of energy development is supported in current literature. In Wyoming, sage-grouse (*Centrocercus urophasianus*) residing in a fragmented landscape showed a 3 times greater decline in active leks at conventional coal bed methane well densities (1 well per 32 ha) than those in the most contiguous expanses of Wyoming big sagebrush (*Artemisia tridentata*) in North America (Doherty et al. 2010). A similar relationship has been document for large mammals. In the Boreal forest, woodland caribou (*Rangifer tarandus caribou*) populations could sustain greater levels of industrial development and maintain an increasing population when they resided in large forest tracts that were not fragmented by wildfires (Sorensen et al. 2008).

Our ability to support the hypothesis that habitat quality mitigates impacts could be confounded by time-lags in detecting impacts, as well as the potential for ducks to habituate to wind energy development over time but at a cost to individual fitness (Bejder et al. 2009). The KE wind site was cropland-dominated and began operation in 2003, whereas the TAT wind site was grassland-dominated and began operation in 2008, and was 3 years old during the final field season. Many recent studies for a variety of species and ecosystems have shown time lags between dates of first construction and full biological impacts. In Wyoming impacts to sage-grouse in some instances doubled 4 years post-development versus the initial year of development (Doherty et al. 2010) and lags varied from 2 to 10 years (Harju et al. 2010). In some instances, full biological impacts may not be apparent for decades. For example, 2 decades passed before impacts of forest logging resulted in woodland caribou population extirpation within 13 km of logging (Vors et al. 2007). In a review paper on the effects of wind farms to birds on 19 globally distributed wind farms using meta-analyses, time lags were important in detecting impacts for their meta-analyses with longer operating times of wind farms resulting in greater declines in abundance of Anseriformes (Stewart et al. 2007). Pink-footed geese foraging during spring appear to have habituated to the presence of wind turbines in Europe (Madsen and Boertmann 2008). We therefore cannot distinguish between these 2 competing hypotheses without additional study.

Wind resources are both abundant and wide-spread in the PPR in the United States (Heimiller and Haymes 2001, Kiesecker et al. 2011), and the development of an additional 37 GW of wind energy capacity in the PPR states is necessary to meet 20% of domestic energy needs by 2030 (USDOE 2008). The projected wind farm footprint in PPR states to support this target is approximately 39,601 km^2. 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.

Waterfowl conservation partners in the PPR use strategic habitat conservation (Reynolds et al. 1996, 2006; Ringelman 2005; USFWS 2006; Loesch et al. 2012) in an adaptive management framework to target protection, management, and restoration based on biological and landscape information, primarily in response to habitat loss from agricultural activities. From a habitat quality and conservation perspective, wind energy development should be considered as another stressor relative to the cumulative effects of anthropogenic impacts on limiting factors to breeding waterfowl populations.

The protection of remaining, high priority grassland and wetland resources in the United States PPR is the primary focus of waterfowl habitat conservation (Ringelman 2005, Niemuth et al. 2008, Loesch et al. 2012). Population goals and habitat objectives were established to maintain habitat for breeding pairs and the current productivity of the landscape (Ringelman 2005, Government Accounting Office 2007). Spatially explicit decision support tools (Reynolds et al. 1996, Niemuth et al. 2005, Stephens et al. 2008, Loesch et al. 2012) have been used effectively to target and prioritize resources for protection. New stressors such as energy development in the PPR that negatively affect the use of wetland resources have ramifications to breeding waterfowl populations (i.e., potential displacement to lower quality wetland habitat) and their conservation and management. Thus, population and habitat goals, and targeting criteria may need to be revisited if large-scale wind development occurs within continentally important waterfowl conservation areas like the PPR.

MANAGEMENT IMPLICATIONS

Balancing the development of wind energy and current conservation efforts to protect habitat for migratory birds is complex because most conservation and wind energy development in the region occur on private land (USFWS 2011). Given that breeding duck pairs do not completely avoid wetlands in and adjacent to wind energy developments and resource benefits remain, albeit at reduced levels, the grassland and wetland protection prioritization criteria used by conservation partners in the PPR (Ringelman 2005) could be adjusted to account for avoidance using various scenarios of acceptable impact. For example, the wind sites used in our study are in high priority conservation locations (Ringelman 2005, Loesch et al. 2012). After accounting for effects of duck displacement by wind development, their priority was not reduced for either site. Consequently, wind-development does not necessarily preclude these sites from consideration for protection. Additionally, using the measured negative impact of wind energy development and production on breeding duck pairs, opportunities to work with wind energy industry to mitigate the reduced value of wetlands in proximity to wind towers should be investigated. Continued partnership by the wind energy industry and wildlife conservation groups will be critical for continued research. Further, we suggest expanding our research both spatially and temporally to better address cumulative impacts, zone of influence, impacts on vital rates, potential habituation or tolerance, and/or lag effects of long-term exposure to wind energy development.

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Associate Editor: Michael Chamberlain.

Testimony in Opposition to
REENGROSSED HOUSE BILL NO. 1383
Senate Energy and Natural Resources Committee
March 7, 2019

Chairman Unruh, Senate Energy and Natural Resources Committee members, for the record my name is Todd D. Kranda. I am an attorney with the Kelsch Ruff Kranda Nagle & Ludwig Law Firm in Mandan. I appear before you today as a lobbyist on behalf of the North Dakota Petroleum Council (NDPC) to oppose HB 1383.

NDPC represents more than 500 companies involved in all aspects of the oil and gas industry, including oil and gas production, refining, pipelines, transportation, mineral leasing, consulting, legal work, and oilfield service activities in North Dakota, and has been representing the energy industry since 1952.

HB 1383 creates an environmental impact mitigation fund (§2) ($5M Approp. §9) and also amends the Energy Conversion and Transmission Facility Siting Acts for electric facilities under Chapter 49-22 NDCC (§§ 3, 4 & 5) and for gas and liquid facilities under Chapter 49-22.1 NDCC (§§ 6, 7 & 8).

HB 1383 creates confusion, uncertainty, and more importantly, is duplicative of another piece of legislation, namely SB 2261 which was considered and passed in the Senate earlier this 2019 Legislative Session. SB 2261 dealt with the same or similar subject matter regarding mitigation of adverse environmental impacts under the Energy Conversion and Transmission Facility Siting Acts with electric facilities under Chapter 49-22 NDCC and with gas and liquid facilities under Chapter 49-22.1 NDCC.

In conclusion, NDPC urges your opposition to **HB 1383** and respectfully requests a **Do Not Pass** recommendation. Thank you and I would be happy to try to answer any questions.

Good Morning Chairman Unruh, and Committee members.

My name is Dave Nehring, and I am here representing North Dakota Visionkeepers, a North Dakota entity that was established to guard against improper siting of wind energy projects in our state.

I am opposing HB 1383 for a number of reasons.

I strongly believe in science as a path to follow when it comes to most everything we consider – science has driven significant advances in ag yields and quality, brought us new technologies in oil recovery, enhanced the air quality through clean coal technology, and many, many other scientific advances. It is my belief that this bill is driven by emotion, not science. It appears to be a vendetta against conservation organizations and agencies that are doing their jobs to the best of their abilities in the attempt to protect natural resources. I know that there has been lots of misinformation given regarding a voluntary mitigation package that happened in South Central North Dakota. Isn't it time to clear up the misconceptions that have been allowed to flourish?

As I review the proposed bill, several questions come to mind:

1. Why does this bill use a committee that was established to "review federal environmental legislation and regulations"? Is that truly what we are dealing with here?
2. Where does the money to fund this account come from?
3. Who determines the allocation of funds for a specific project?
4. Can you give me the definition of "direct" and "in-direct" environmental effects?

If this is just a solution in search of a problem that does not exist, why go through this process? If there is a need for changes to the process that exists in North Dakota for energy development, shouldn't we establish a study, rather than plunging headlong into a boondoggle that does nothing except confuse the process?

I'll leave you with a policy resolution that was adopted in December 2018 by the Western Governors Association. WGA Resolution 2019-03 recognizes the importance of utilizing our state agency that has the expertise and bears the responsibility of conserving the natural resources in our great state. Shouldn't we as a state do the same?

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WESTERN GOVERNORS' ASSOCIATION

Policy Resolution 2019-03

Compensatory Mitigation

A. BACKGROUND

1. Through their sovereign and statutory powers, states have primary management authority over all fish and wildlife within their borders. Following decades of work by staff and contractors, states have developed extensive science, expertise, and knowledge of species within their borders.

2. Governors bear responsibility for managing state interests, authorities and property rights within state borders – including fish and wildlife – and oversee state agencies charged with properly managing wildlife, habitat and related resources within their states.

3. States are the primary recipients of economic benefits associated with healthy species and ecosystems. At the same time, the economic costs of compliance with federal environmental regulations can fall disproportionately on western states and local communities. States recognize the importance of economic development and acknowledge the challenges of managing the risk of impacts to fish and wildlife populations and habitat while advancing economic development.

4. Compensatory mitigation plays an important role in fish and wildlife management and conservation, and states rely on its use in developing and executing species conservation strategies. Compensatory mitigation strategies employed by states include, but are not limited to, habitat protection, habitat restoration, establishment, enhancement, or conservation activities and advance mitigation where conservation benefits are secured before project impacts occur.

5. The mitigation hierarchy is a commonly referenced and widely utilized strategy in determining compensatory mitigation requirements for projects. The mitigation hierarchy consists of first avoiding adverse impacts to fish and wildlife populations and habitat where practicable, then minimizing adverse impacts where they cannot be avoided including on-site restoration where possible. The next step is employing compensatory mitigation measures to replace resources or offset direct and indirect adverse impacts that remain following avoidance and minimization. This practice is memorialized under the Council of Environmental Quality's implementing regulations and other federal policy and guidance.[1] Some states have identified and utilized a final step in the mitigation hierarchy, monitoring project impacts and mitigation actions and taking appropriate corrective measures to achieve the identified goal.

6. While states exercise primary management authority over fish and wildlife within their borders, habitat for fish and wildlife often spans a patchwork of land ownership types, complicating state efforts to manage and conserve species under their management jurisdiction. This is particularly challenging in western states, where federal ownership constitutes a generally higher percentage of overall land ownership.

[1] 40 CFR 1508.20

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B. GOVERNORS' POLICY STATEMENT

1. States have the responsibility to establish appropriate statutes, regulations, policies and programs to manage fish and wildlife within their borders. This responsibility extends to the development of compensatory mitigation standards and implementation of compensatory mitigation for species under their management purview.

2. Compensatory mitigation approaches vary from state to state, but they are designed to fully offset residual impacts to habitat function and value[2]. Governors recognize that habitat functionality and value are the primary metric by which mitigation outcomes are measured. Compensatory mitigation efforts must be sufficient to fully offset direct and indirect residual impacts to habitat function at the appropriate scale necessary to meet conservation goals.

3. Where state mitigation programs or standards are in place, consistency with existing state policy should be the primary guiding principle for a federal agency's development or implementation of compensatory mitigation on lands within their management authority or jurisdiction.

4. Whether or not state mitigation programs or standards are in place, Western Governors urge federal agencies to coordinate with states in the development of compensatory mitigation programs and policies. Where state compensatory mitigation programs or standards exist, federal agencies should adopt and implement state-supported compensatory mitigation programs and policies. Consistency between federal mitigation standards and those in state-supported programs allows wildlife managers, state and federal regulators, and developers to use a consistent compensatory mitigation program across differing land ownership within a state. States will engage federal agencies in the development or amendment of compensatory mitigation programs and policies.

5. Western Governors recognize that the diversity of conceivable species, habitat, and project specific circumstances make quantifying measures, with clearly defined goals for compensatory mitigation, challenging for both state and federal agencies. Governors urge federal agencies, in consultation with states, to provide consistency in the use of and improve assessment criteria for mitigation goals. Governors believe mitigation goals should establish clear expectations backed by effective assessment criteria.

6. Western Governors recognize that mitigation of development impacts to habitat or natural resources must account for a level of risk and uncertainty that a particular compensatory mitigation action may fail to adequately offset adverse impacts to fish, wildlife and habitat. Federal agencies should acknowledge a variety of tools and measures for incorporating risk and uncertainty based on the diverse experience of states in designing and implementing compensatory mitigation programs.

[2] Habitat value is an assessment of the affected fish and wildlife habitat based on three attributes; scarcity, suitability and importance. Importance is the relative significance of the affected habitat, compared to other examples of a similar habitat type in a landscape context.

7. Governors believe that federal mitigation policies should be developed in coordination with Governors, and the state agency officials they designate, to achieve the following objectives:

- Provide measurable and documentable habitat and conservation values, services and functions that are at least equal to the lost or degraded values, services and functions caused by the impact.
- Incorporate measures to account for a level of risk that a particular compensatory mitigation action may fail or not achieve its stated objectives, and uncertainty about the level and duration of estimated impacts.
- Compensatory mitigation projects should be sited and designed strategically to support the most effective conservation or restoration projects; the effectiveness of mitigation actions should be based on the best available science.
- Provide benefits that are durable and in place for at least the duration of the residual adverse impacts.
- Encourage the application of compensatory mitigation prior to the impact occurring to ensure no lag time occurs between impacts and offsets.
- Offer transparency and certainty to developers, regulators, and the public to the extent feasible. This necessitates early and substantive consultation with states and consistency with state-designed compensatory mitigation standards where they exist.

C. GOVERNORS' MANAGEMENT DIRECTIVE

1. The Governors direct WGA staff to work with Congressional committees of jurisdiction, the Executive Branch, and other entities, where appropriate, to achieve the objectives of this resolution.

2. Furthermore, the Governors direct WGA staff to consult with the Staff Advisory Council regarding its efforts to realize the objectives of this resolution and to keep the Governors apprised of its progress in this regard.

Western Governors enact new policy resolutions and amend existing resolutions on a bi-annual basis. Please consult westgov.org/resolutions for the most current copy of a resolution and a list of all current WGA policy resolutions.

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North Dakota Wildlife Federation

Ensuring abundant wildlife, wildlife habitat, and access to wildlife recreational opportunities

TESTIMONY OF JOHN BRADLEY

NORTH DAKOTA WILDLIFE FEDERATION

HOUSE BILL 1383

SENATE ENERGY AND NATURAL RESOURCES

COMMITTEE

March 7th, 2019

Madam Chair Unruh, members of the Senate Energy and Natural Resources Committee:

For the Record, I am John Bradley, Executive Director of the North Dakota Wildlife Federation (NDWF). I'm here today representing our 1,500 members in 15 affiliated wildlife and sportsmen's club across North Dakota.

North Dakota Wildlife Federation is opposed to HB 1383 for three primary reasons: (1) It eliminates the consideration of indirect impacts to the environment and wildlife resulting from energy transmission, conversion, and siting; (2) It proposes to establish an environmental impact mitigation fund advisory board with no representation from the environmental, wildlife, or natural resources community; and (3) It proposes to utilize

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taxpayer dollars to subsidize the mitigation of environmental impacts from energy development.

First, Indirect impacts in the form of habitat avoidance are very real, documented, and the subject of peer-reviewed and published scientific research. They will continue to exist, regardless of how these issues are addressed in law.

Second, HB 1383 proposes to establish an advisory board to administer and consider grants from an environmental impact mitigation fund, and the board has absolutely no representation from the environmental, wildlife, or natural resources communities. At least state agencies with expertise in these areas, such as, for example, the Game and Fish Department, the Water Commission, or the Department of Natural Resources, should be included on this board, if it is established. By eliminating the input of these constituencies, this proposal ignores an important part of North Dakota's economy. North Dakota's outdoor economy is the third largest sector of the economy, with hunting and fishing alone contributing $2 billion annually.

Lastly, this committee should reject the proposal in this bill to appropriate $5 million for an environmental impact mitigation fund. If development has environmental, wildlife, or other impacts, those should be addressed and paid for by the developers. Taxpayers should not be subsidizing the mitigation of impacts from energy development.

Thank you for the opportunity to testify and I will stand for any questions.

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A random sample of 24,451 resident hunters and anglers and 7,914 nonresident hunters and anglers was used to solicit information on characteristics and hunting and fishing expenditures.

The average resident open water angler spent $4,344 per year, compared to nonresident anglers who spent $1,239 per year.

Total spending by hunters and anglers in North Dakota during the 2017-2018 season was estimated at $974.4 million, excluding purchases of licenses.

- Resident hunter and angler expenditures were estimated at $846.8 million and nonresident hunter and angler expenditures were estimated at $127.6 million.
- Expenditures from hunting were estimated at $186.6 million and expenditures from fishing were estimated at $787.8 million.

The total economic effects of all hunting and fishing activities in North Dakota during 2017-2018 were estimated at:

- $974.4 million in direct expenditures, of which $576 million occurred in rural areas (i.e., towns with a population fewer than 2,500)
- $1,139 million in secondary economic effects
- $2.1 billion in gross business volume across the state
- 3,263 full-time equivalent jobs
- $48 million in state tax collections

Comparison of total direct expenditures by hunters and anglers in North Dakota during the 2011–12 and 2017–18 hunting and fishing seasons.

	MILLIONS OF DOLLARS ($)		DIFFERENCE	
	2011–12	2017–18	DOLLARS ($)	PERCENT (%)
Total Expenditures	707.1	974.4	267.3	37.8
Residents	612.5	846.8	234.3	38.3
Nonresidents	94.6	127.6	33.0	34.0
Hunting	239.3	186.6	-52.7	-22.0
Residents	190.0	134.3	-55.7	-29.0
Nonresidents	49.3	52.3	3.0	6.0
Fishing	467.8	787.8	320.3	68.4
Residents	422.5	712.5	290.0	68.6
Nonresidents	45.3	75.3	30.0	66.3

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Stump Pullers, Axes, and Other Instruments of Destruction
5 April 1907

After he became president, Teddy Roosevelt established 150 national forests, 51 federal bird reserves, four national game preserves, five national parks, and eighteen national monuments. He preserved 230 million acres of public land for future generations.

But while Teddy gets most of the credit for protecting public lands, the movement pre-dated him. President Grant signed the Yellowstone Act in 1872. The Act set aside over one million acres that would be preserved "from injury or spoilation, of all timber, mineral deposits, natural curiosities, or wonders within." Yellowstone was the first national park not only in the United States but anywhere in the world.

The efforts to protect public lands did not always run smoothly. Many ranchers, miners. farmers, hunters, and lumbering companies simply ignored the rules. They illegally cut down trees, opened mines, erected fences, and grazed public lands. In 1885, Congress addressed the problem, passing a law authorizing the removal of any illegal structure on public land. Those who wanted to use public lands for their own purposes would not be allowed to use "force, threats, intimidation…or any other unlawful means" to deny access to the public.

Although the law was passed in 1885, it was not rigorously enforced. At least, it wasn't until Teddy Roosevelt moved into the White House. On this date in 1907, North Dakota newspapers alerted readers to a change in policy. The Washburn Leader warned that "small armies of men armed to the teeth with stump pullers, axes, and other instruments of destruction" would be venturing out to rectify the situation. These men were instructed to remove all fences on public land.

The article noted that fences had been prohibited on public land since the law was passed in 1885. But there was an acknowledgement that the law had been enforced only occasionally and in rare spots. But that was no longer the case. The work would continue until "every vestige of a fence" was been removed. It was estimated that ten thousand workers would be needed to remove thousands of miles of illegal fencing.

Teddy said he had been repeatedly approached by cattlemen who sought to leave their fences up for another six months or another year. He had finally lost patience, and the fences were coming down.

Dakota Datebook written by Carole Butcher.
Sources:
Washburn Leader. "Illegal Fencing of Public Lands." Washburn ND. 5 April 1907. Page 1.
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19.0188.12002

Sixty-sixth
Legislative Assembly
of North Dakota

SECOND ENGROSSMENT

REENGROSSED HOUSE BILL NO. 1383

Introduced by

Representatives Brandenburg, Boe, Headland, Howe, D. Johnson, Schmidt

Senators Dotzenrod, Erbele, Luick, J. Roers, Rust, Wanzek

A BILL for an Act to create and enact a new section to chapter 4.1-01~~,~~ and a new section to chapter 49-22~~, and a new section to chapter 49-22.1~~ of the North Dakota Century Code, relating to the creation of an environmental impact mitigation fund and to mitigating direct environmental impacts; to amend and reenact subsection 1 of section 4.1-01-18, and sections 49-22-05.1~~,~~ and 49-22-09~~, 49-22.1-03, and 49-22.1-09~~ of the North Dakota Century Code, relating to the federal environmental law impact review committee, exclusion and avoidance areas and the factors considered by the public service commission when evaluating and designating sites, corridors, and routes; to provide for a report to the budget section~~; to provide an appropriation~~; and to provide a continuing appropriation.

BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF NORTH DAKOTA:

SECTION 1. AMENDMENT. Subsection 1 of section 4.1-01-18 of the North Dakota Century Code is amended and reenacted as follows:

1. The federal environmental law impact review committee consists of:
   a. The commissioner, who shall serve as the chairman;
   b. The governor or the governor's designee;
   c. The majority leader of the house of representatives, or the leader's designee;
   d. The majority leader of the senate, or the leader's designee;
   e. One member of the legislative assembly from the minority party, selected by the chairman of the legislative management;
   ~~f. One individual appointed by the lignite energy council;~~
   ~~g. One individual appointed by the North Dakota corn growers association;~~
   ~~h. One individual appointed by the North Dakota grain growers association;~~
   ~~i. One individual appointed by the North Dakota petroleum council;~~
   ~~j. One individual appointed by the North Dakota soybean growers association;~~ ~~and~~

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~~k. One individual appointed by the North Dakota stockmen's association;~~

~~l. One individual appointed by the North Dakota farm bureau;~~

~~m. One individual appointed by the North Dakota farmers union;~~

~~n.~~ The chairman of the public service commission or the chairman's designee;

g. The state engineer or the state engineer's designee;

h. The director of the game and fish department, or the director's designee;

i. The director of the department of transportation, or the director's designee;

j. The director of the department of environmental quality, or the director's designee;

k. One representative of an investor-owned utility companies; ~~and~~

~~o.~~ l. One representative from the North Dakota association of rural electric cooperatives;

m. Two individuals from the agricultural production community appointed by the governor;

n. Two individuals from the conservation community appointed by the governor;

o. Two individuals appointed by the governor from the wind energy development community;

p. Two individuals from the crop community appointed by the governor;

q. Two individuals from the animal agriculture community appointed by the governor; and

r. Two individuals from the energy community appointed by the governor.

SECTION 2. A new section to chapter 4.1-01 of the North Dakota Century Code is created and enacted as follows:

Environmental impact mitigation fund - Report to budget section - Continuing appropriation.

1. ~~The moneys accumulated in the environmental impact mitigation fund must be allocated as provided by law and as appropriated by the legislative assembly~~There is created in the state treasury the environmental impact mitigation fund. The fund consists of all moneys deposited in the fund under section 5 of this Act. All moneys in the fund are appropriated to the commissioner on a continuing basis for distribution by the agriculture commissioner~~:~~

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~~a. To political subdivisions and state agencies to offset impacts of energy development to agricultural land;~~

~~b.~~ ~~To~~ to landowners for the mitigation of agricultural land impacted by wind energy development~~; and~~

~~c. To landowners of agricultural land who are subject to excessive mitigation of wetlands~~ as set forth under subsection 2.

2. Funding may be used only for:

a. Contracting for consultation with environmental scientists~~, wildlife biologists, biologists, soil scientists, range scientists, engineers, economists, or scientists in any other field determined to be relevant for services including the evaluation, assessment, and analysis of the physical composition and potential chemical properties of land determined to be impacted by energy development or land to be considered for mitigation;~~ or engineers for relevant services to implement mitigation required from the impact of wind energy development; and

b. Reclamation~~, restoration,~~ or mitigation of ~~land, water resources, or wildlife habitats adversely impacted directly by~~adverse impacts from wind energy development~~; and~~

~~c. Offsetting or defraying costs of landowner mitigation in qualifying circumstances as determined by the advisory board~~.

3. ~~The commissioner is not subject to chapter 54-44.4 when contracting for services under this chapter.~~

~~4.~~ The federal environmental law impact review committee shall establish criteria for disbursement of environmental impact funds.

~~5.~~4. The commissioner shall make disbursements based upon the determinations made by the federal environmental law impact review committee.

~~6.~~5. For purposes of this section, the federal environmental law impact review committee shall hold ~~at least one regular meeting each year and additional~~ meetings as the chairman determines necessary at a time and place set by the chairman. Upon written request of any four members, the presiding officer shall call a special meeting of the committee.

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~~7.~~6. The federal environmental law impact review committee shall make determinations for the disbursement of grants in accordance with subsection 2 and provide those determinations to the commissioner.

~~8.~~7. The federal environmental law impact review committee shall provide a biennial report to the ~~budget section of the~~ legislative management.

~~9. All moneys in the environmental impact mitigation fund are appropriated to the commissioner on a continuing basis for the purposes set forth under subsection 2.~~

SECTION 3. AMENDMENT. Section 49-22-05.1 of the North Dakota Century Code is amended and reenacted as follows:

49-22-05.1. Exclusion and avoidance areas - Criteria.

1. The commission shall develop criteria to be used in identifying exclusion and avoidance areas and to guide the site, corridor, and route suitability evaluation and designation process. The criteria also may include an identification of impacts and policies or practices which may be considered in the evaluation and designation process.

2. The commission may not identify prime farmland, unique farmland, or irrigated land as exclusion or avoidance areas when evaluating and designating geographical areas for site, corridor, or route suitability.

3. Except for electric transmission lines in existence before July 1, 1983, areas within five hundred feet [152.4 meters] of an inhabited rural residence must be designated avoidance areas. This criterion does not apply to a water pipeline. The five hundred foot [152.4 meter] avoidance area criteria for an inhabited rural residence may be waived by the owner of the inhabited rural residence in writing.

~~3.~~4. Areas less than one and one-tenth times the height of the turbine from the property line of a nonparticipating landowner and less than three times the height of the turbine or more from an inhabited rural residence of a nonparticipating landowner, must be excluded in the consideration of a site for a wind energy conversion area, unless a variance is granted. The commission may grant a variance if an authorized representative or agent of the permittee, the nonparticipating landowner, and affected parties with associated wind rights file a written agreement expressing the support of all parties for a variance to reduce the setback requirement in this subsection. A

nonparticipating landowner is a landowner that has not signed a wind option or an easement agreement with the permittee of the wind energy conversion facility as defined in chapter 17-04. A local zoning authority may require setback distances greater than those required under this subsection. For purposes of this subsection, "height of the turbine" means the distance from the base of the wind turbine to the turbine blade tip when it is in its highest position.

SECTION 4. AMENDMENT. Section 49-22-09 of the North Dakota Century Code is amended and reenacted as follows:

49-22-09. Factors to be considered in evaluating applications and designation of sites, corridors, and routes.

1. The commission shall be guided by, but is not limited to, the following considerations, where applicable, to

~~1. To~~ aid ~~in~~ the evaluation and designation of sites, corridors, and routes~~, the commission shall consider~~:

~~1.~~ a. Available research and investigations relating to the effects of the location, construction, and operation of the proposed facility on public health and welfare, natural resources, and the environment.

~~2.~~ b. The effects of new electric energy conversion and electric transmission technologies and systems designed to minimize adverse environmental effects.

~~3.~~ c. The potential for beneficial uses of waste energy from a proposed electric energy conversion facility.

~~4.~~ d. Adverse direct and indirect environmental effects that cannot be avoided should the proposed site or route be designated.

~~5.~~ e. Alternatives to the proposed site, corridor, or route which are developed during the hearing process and which minimize adverse effects.

~~6.~~ f. Irreversible and irretrievable commitments of natural resources should the proposed site, corridor, or route be designated.

~~7.~~ g. The direct and indirect economic impacts of the proposed facility.

~~8.~~ h. Existing plans of the state, local government, and private entities for other developments at or in the vicinity of the proposed site, corridor, or route.

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~~9.~~ i. The effect of the proposed site or route on existing scenic areas, historic sites and structures, and paleontological or archaeological sites.

~~10.~~ j. The effect of the proposed site or route on areas ~~which are~~ unique because of biological wealth or because ~~they~~the areas are habitats for rare and endangered species.

~~11.~~ k. Problems raised by federal agencies, other state agencies, and local entities.

2. ~~In the evaluation and designation of sites, corridors, and routes, the commission may not:~~

~~a. Require payment for mitigation of any assessed adverse indirect environmental effects or impacts; or~~

~~b. Require payment to a third-party nongovernmental organization for any assessed adverse direct or indirect environmental effects or impacts.~~The commission may not condition the issuance of a certificate or permit on the applicant providing a mitigation payment assessed or requested by another state agency or entity to offset a negative impact on wildlife habitat.

SECTION 5. A new section to chapter 49-22 of the North Dakota Century Code is created and enacted as follows:

Mitigating direct environmental impacts.

1. ~~If an applicant elects to provide~~An applicant may elect to provide payment to mitigate any assessed adverse direct environmental ~~impact~~impacts of a proposed site, corridor, route, or facility~~, the applicant shall make the payment to the agriculture commissioner~~. The applicant may elect to provide the payment to the agriculture commissioner.

2. ~~Subject to subsection 3, the~~The agriculture commissioner shall deposit into the environmental impact mitigation fund any moneys paid to mitigate the adverse direct environmental impacts of a proposed site, corridor, route, or facility.

~~3. At the applicant's request, the agriculture commissioner may provide moneys directly to an organization approved by the federal environmental law impact review committee.~~

~~**SECTION 6. AMENDMENT.** Section 49-22.1-03 of the North Dakota Century Code is amended and reenacted as follows:~~

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~~**49-22.1-03. Exclusion and avoidance areas - Criteria.**~~

~~1. The commission shall develop criteria to be used in identifying exclusion and avoidance areas and to guide the site, corridor, and route suitability evaluation and designation process.~~

~~2. The commission may not identify prime farmland, unique farmland, or irrigated land as exclusion or avoidance areas when evaluating and designating geographical areas for site, corridor, or route suitability.~~

~~3. Except for oil and gas transmission lines in existence before July 1, 1983, areas within five hundred feet [152.4 meters] of an inhabited rural residence must be designated avoidance areas.~~

~~a. This criterion does not apply to a water pipeline.~~

~~b. The five hundred foot [152.4 meter] avoidance area criteria for an inhabited rural residence may be waived by the owner of the inhabited rural residence in writing.~~

~~c. The criteria also may include an identification of impacts and policies or practices which may be considered in the evaluation and designation process.~~

~~**SECTION 7. AMENDMENT.** Section 49-22.1-09 of the North Dakota Century Code is amended and reenacted as follows:~~

~~**49-22.1-09. Factors to be considered in evaluating applications and designation of sites, corridors, and routes.**~~

~~The commission is guided by, but is not limited to, the following considerations, when applicable, to~~

~~1. To aid in the evaluation and designation of sites, corridors, and routes, the commission shall consider:~~

~~1. a. Available research and investigations relating to the effects of the location, construction, and operation of the proposed facility on public health and welfare, natural resources, and the environment.~~

~~2. b. The effects of new gas or liquid energy conversion and gas or liquid transmission technologies and systems designed to minimize adverse environmental effects.~~

~~3. c. The potential for beneficial uses of waste energy from a proposed gas or liquid energy conversion facility.~~

4. d. Adverse direct and indirect environmental effects that cannot be avoided should the proposed site or route be designated.

5. e. Alternatives to the proposed site, corridor, or route that are developed during the hearing process and which minimize adverse effects.

6. f. Irreversible and irretrievable commitments of natural resources should the proposed site, corridor, or route be designated.

7. g. The direct and indirect economic impacts of the proposed facility.

8. h. Existing plans of the state, local government, and private entities for other developments at or in the vicinity of the proposed site, corridor, or route.

9. i. The effect of the proposed site or route on existing scenic areas, historic sites and structures, and paleontological or archaeological sites.

10. j. The effect of the proposed site or route on areas that are unique because of biological wealth or because the site or route is a habitat for rare and endangered species.

11. k. Problems raised by federal agencies, other state agencies, and local entities.

2. In the evaluation and designation of sites, corridors, and routes, the commission may not:

a. Require payment for mitigation of any assessed adverse indirect environmental effects or impacts; or

b. Require payment to a third-party nongovernmental organization for any assessed adverse direct or indirect environmental effects or impacts.

SECTION 8. A new section to chapter 49-22.1 of the North Dakota Century Code is created and enacted as follows:

Mitigating direct environmental impacts.

1. If an applicant elects to provide payment to mitigate any assessed adverse direct environmental impact of a proposed site, corridor, route, or facility, the applicant shall make the payment to the agriculture commissioner.

2. Subject to subsection 3, the agriculture commissioner shall deposit into the environmental impact mitigation fund any moneys paid to mitigate the adverse direct environmental impacts of a proposed site, corridor, route, or facility.

~~3. At the applicant's request, the agriculture commissioner may provide moneys directly to an organization approved by the federal environmental law impact review committee.~~

~~SECTION 9. APPROPRIATION.~~ ~~There is appropriated out of any moneys in the environmental impact mitigation fund in the state treasury, not otherwise appropriated, the sum of $5,000,000, or so much of the sum as may be necessary, to the agriculture commissioner for the purpose of providing grants to political subdivisions for the mitigation of environmental impacts, for the biennium beginning July 1, 2019, and ending June 30, 2021.~~

19.0188.12006

Sixty-sixth
Legislative Assembly
of North Dakota

SECOND ENGROSSMENT

REENGROSSED HOUSE BILL NO. 1383

Introduced by

Representatives Brandenburg, Boe, Headland, Howe, D. Johnson, Schmidt

Senators Dotzenrod, Erbele, Luick, J. Roers, Rust, Wanzek

A BILL for an Act to create and enact a new section to chapter 4.1-01~~,~~ and a new section to chapter 49-22~~, and a new section to chapter 49-22.1~~ of the North Dakota Century Code, relating to the creation of an environmental impact mitigation fund and to mitigating direct environmental impacts; to amend and reenact subsection 1 of section 4.1-01-18~~,~~ and sections 49-22-05.1~~,~~ and 49-22-09~~, 49-22.1-03, and 49-22.1-09~~ of the North Dakota Century Code, relating to the federal environmental law impact review committee, exclusion and avoidance areas and the factors considered by the public service commission when evaluating and designating sites, corridors, and routes; to provide for a report to the budget section; to provide an appropriation; and to provide a continuing appropriation.

BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF NORTH DAKOTA:

SECTION 1. AMENDMENT. Subsection 1 of section 4.1-01-18 of the North Dakota Century Code is amended and reenacted as follows:

1. The federal environmental law impact review committee consists of:
   a. The commissioner, who shall serve as the chairman;
   b. The governor or the governor's designee;
   c. The majority leader of the house of representatives, or the leader's designee;
   d. The majority leader of the senate, or the leader's designee;
   e. One member of the legislative assembly from the minority party, selected by the chairman of the legislative management;
   f. ~~One individual appointed by the lignite energy council;~~
   ~~g.~~ One individual appointed by the North Dakota corn growers association; restored
   ~~h.~~g. One individual appointed by the North Dakota grain growers association; restored
   ~~i. One individual appointed by the North Dakota petroleum council;~~
   ~~j.~~h. One individual appointed by the North Dakota soybean growers association; ~~and~~ restored

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~~h.~~ One individual appointed by the North Dakota stockmen's association;

~~i.~~ One individual appointed by the North Dakota farm bureau;

~~j.~~ One individual appointed by the North Dakota farmers union;

~~k.~~ The chairman of the public service commission or the chairman's designee;

~~l.~~ The state engineer or the state engineer's designee;

m. The director of the game and fish department, or the director's designee;

n. The director of the department of transportation, or the director's designee;

o. The director of the department of environmental quality, or the director's designee;

p. One representative of an investor-owned utility companies; ~~and~~

q. One representative from the North Dakota association of rural electric cooperatives; and

r. Two individuals from the energy community appointed by the commissioner.

SECTION 2. A new section to chapter 4.1-01 of the North Dakota Century Code is created and enacted as follows:

Environmental impact mitigation fund - Report to budget section - Continuing appropriation.

1. ~~The moneys accumulated in the environmental impact mitigation fund must be allocated as provided by law and as appropriated by the legislative assembly.~~ There is created in the state treasury the environmental impact mitigation fund. The fund consists of all moneys deposited in the fund under section 5 of this Act. All moneys in the fund are appropriated to the commissioner on a continuing basis for distribution by the agriculture commissioner:

   a. ~~To political subdivisions and state agencies to offset impacts of energy development to agricultural land;~~

   b. ~~To~~ to landowners for the mitigation of agricultural land impacted by ~~energy~~ development; ~~and~~

   c. ~~To landowners of agricultural land who are subject to excessive mitigation of wetlands~~ as set forth under subsection 2.

2. Funding may be used only for:

a. Contracting for consultation with environmental scientists ~~, wildlife biologists, biologists, soil scientists, range scientists, engineers, economists, or scientists in any other field determined to be relevant for services including the evaluation, assessment, and analysis of the physical composition and potential chemical properties of land determined to be impacted by energy development or land to be considered for mitigation;~~ or engineers for relevant services to implement mitigation required from the impact of development; and

b. Reclamation ~~, restoration,~~ or mitigation of ~~land, water resources, or wildlife habitats adversely impacted directly by energy~~ adverse impacts from development ~~; and~~

~~c. Offsetting or defraying costs of landowner mitigation in qualifying circumstances as determined by the advisory board.~~

~~3.~~ The commissioner is not subject to chapter 54-44.4 when contracting for services under this chapter.

4. The federal environmental law impact review committee shall establish criteria for disbursement of environmental impact funds.

5. The commissioner shall make disbursements based upon the determinations made by the federal environmental law impact review committee.

6. For purposes of this section, the federal environmental law impact review committee shall hold ~~at least one regular meeting each year and additional~~ meetings as the chairman determines necessary at a time and place set by the chairman. Upon written request of any four members, the presiding officer shall call a special meeting of the committee.

7. The federal environmental law impact review committee shall make determinations for the disbursement of grants in accordance with subsection 2 and provide those determinations to the commissioner.

8. The federal environmental law impact review committee shall provide a biennial report to the ~~budget section of the~~ legislative management.

~~9. All moneys in the environmental impact mitigation fund are appropriated to the commissioner on a continuing basis for the purposes set forth under subsection 2.~~

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SECTION 3. AMENDMENT. Section 49-22-05.1 of the North Dakota Century Code is amended and reenacted as follows:

49-22-05.1. Exclusion and avoidance areas - Criteria.

1. The commission shall develop criteria to be used in identifying exclusion and avoidance areas and to guide the site, corridor, and route suitability evaluation and designation process. The criteria also may include an identification of impacts and policies or practices which may be considered in the evaluation and designation process.

2. The commission may not identify prime farmland, unique farmland, or irrigated land as exclusion or avoidance areas when evaluating and designating geographical areas for site, corridor, or route suitability.

3. Except for electric transmission lines in existence before July 1, 1983, areas within five hundred feet [152.4 meters] of an inhabited rural residence must be designated avoidance areas. This criterion does not apply to a water pipeline. The five hundred foot [152.4 meter] avoidance area criteria for an inhabited rural residence may be waived by the owner of the inhabited rural residence in writing.

~~3.~~4. Areas less than one and one-tenth times the height of the turbine from the property line of a nonparticipating landowner and less than three times the height of the turbine or more from an inhabited rural residence of a nonparticipating landowner, must be excluded in the consideration of a site for a wind energy conversion area, unless a variance is granted. The commission may grant a variance if an authorized representative or agent of the permittee, the nonparticipating landowner, and affected parties with associated wind rights file a written agreement expressing the support of all parties for a variance to reduce the setback requirement in this subsection. A nonparticipating landowner is a landowner that has not signed a wind option or an easement agreement with the permittee of the wind energy conversion facility as defined in chapter 17-04. A local zoning authority may require setback distances greater than those required under this subsection. For purposes of this subsection, "height of the turbine" means the distance from the base of the wind turbine to the turbine blade tip when it is in its highest position.

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SECTION 4. AMENDMENT. Section 49-22-09 of the North Dakota Century Code is amended and reenacted as follows:

49-22-09. Factors to be considered in evaluating applications and designation of sites, corridors, and routes.

1. The commission shall be guided by, but is not limited to, the following considerations, where applicable, to

~~1. To~~ aid ~~in~~ the evaluation and designation of sites, corridors, and routes, ~~the commission shall consider:~~

~~1.~~ a. Available research and investigations relating to the effects of the location, construction, and operation of the proposed facility on public health and welfare, natural resources, and the environment.

~~2.~~ b. The effects of new electric energy conversion and electric transmission technologies and systems designed to minimize adverse environmental effects.

~~3.~~ c. The potential for beneficial uses of waste energy from a proposed electric energy conversion facility.

~~4.~~ d. Adverse direct and indirect environmental effects that cannot be avoided should the proposed site or route be designated.

~~5.~~ e. Alternatives to the proposed site, corridor, or route which are developed during the hearing process and which minimize adverse effects.

~~6.~~ f. Irreversible and irretrievable commitments of natural resources should the proposed site, corridor, or route be designated.

~~7.~~ g. The direct and indirect economic impacts of the proposed facility.

~~8.~~ h. Existing plans of the state, local government, and private entities for other developments at or in the vicinity of the proposed site, corridor, or route.

~~9.~~ i. The effect of the proposed site or route on existing scenic areas, historic sites and structures, and paleontological or archaeological sites.

~~10.~~ j. The effect of the proposed site or route on areas ~~which are~~ unique because of biological wealth or because ~~they~~the areas are habitats for rare and endangered species.

~~11.~~ k. Problems raised by federal agencies, other state agencies, and local entities.

~~2. In the evaluation and designation of sites, corridors, and routes, the commission may not:~~

~~a. Require payment for mitigation of any assessed adverse indirect environmental effects or impacts; or~~

~~b. Require payment to a third-party nongovernmental organization for any assessed adverse direct or indirect environmental effects or impacts.~~ The commission may not condition the issuance of a certificate or permit on the applicant providing a mitigation payment assessed or requested by another state agency or entity to offset a negative impact on wildlife habitat.

SECTION 5. A new section to chapter 49-22 of the North Dakota Century Code is created and enacted as follows:

Mitigating direct environmental impacts.

1. ~~If an applicant elects to provide~~ An applicant may elect to provide payment to mitigate any assessed adverse direct environmental ~~impact~~impacts of a proposed site, corridor, route, or facility, ~~the applicant shall make the payment to the agriculture commissioner.~~ The applicant may elect to provide the payment to the agriculture commissioner.
2. ~~Subject to subsection 3, the~~ The agriculture commissioner shall deposit into the environmental impact mitigation fund any moneys paid to mitigate the adverse direct environmental impacts of a proposed site, corridor, route, or facility.

~~3. At the applicant's request, the agriculture commissioner may provide moneys directly to an organization approved by the federal environmental law impact review committee.~~

~~**SECTION 6. AMENDMENT.** Section 49-22.1-03 of the North Dakota Century Code is amended and reenacted as follows:~~

~~**49-22.1-03. Exclusion and avoidance areas - Criteria.**~~

~~1. The commission shall develop criteria to be used in identifying exclusion and avoidance areas and to guide the site, corridor, and route suitability evaluation and designation process.~~

~~2. The commission may not identify prime farmland, unique farmland, or irrigated land as exclusion or avoidance areas when evaluating and designating geographical areas for site, corridor, or route suitability.~~

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~~3. Except for oil and gas transmission lines in existence before July 1, 1983, areas within five hundred feet [152.4 meters] of an inhabited rural residence must be designated avoidance areas.~~

~~a. This criterion does not apply to a water pipeline.~~

~~b. The five hundred foot [152.4 meter] avoidance area criteria for an inhabited rural residence may be waived by the owner of the inhabited rural residence in writing.~~

~~c. The criteria also may include an identification of impacts and policies or practices which may be considered in the evaluation and designation process.~~

~~**SECTION 7. AMENDMENT.** Section 49-22.1-09 of the North Dakota Century Code is amended and reenacted as follows:~~

~~**49-22.1-09. Factors to be considered in evaluating applications and designation of sites, corridors, and routes.**~~

~~The commission is guided by, but is not limited to, the following considerations, when applicable, to~~

~~1. To aid in the evaluation and designation of sites, corridors, and routes, the commission shall consider:~~

~~a. Available research and investigations relating to the effects of the location, construction, and operation of the proposed facility on public health and welfare, natural resources, and the environment.~~

~~b. The effects of new gas or liquid energy conversion and gas or liquid transmission technologies and systems designed to minimize adverse environmental effects.~~

~~c. The potential for beneficial uses of waste energy from a proposed gas or liquid energy conversion facility.~~

~~d. Adverse direct and indirect environmental effects that cannot be avoided should the proposed site or route be designated.~~

~~e. Alternatives to the proposed site, corridor, or route that are developed during the hearing process and which minimize adverse effects.~~

~~f. Irreversible and irretrievable commitments of natural resources should the proposed site, corridor, or route be designated.~~

~~g. The direct and indirect economic impacts of the proposed facility.~~

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~~8. b. Existing plans of the state, local government, and private entities for other developments at or in the vicinity of the proposed site, corridor, or route.~~

~~9. i. The effect of the proposed site or route on existing scenic areas, historic sites and structures, and paleontological or archaeological sites.~~

~~10. j. The effect of the proposed site or route on areas that are unique because of biological wealth or because the site or route is a habitat for rare and endangered species.~~

~~11. k. Problems raised by federal agencies, other state agencies, and local entities.~~

~~2. In the evaluation and designation of sites, corridors, and routes, the commission may not:~~

~~a. Require payment for mitigation of any assessed adverse indirect environmental effects or impacts; or~~

~~b. Require payment to a third-party nongovernmental organization for any assessed adverse direct or indirect environmental effects or impacts.~~

~~SECTION 3. A new section to chapter 49-22.1 of the North Dakota Century Code is created and enacted as follows:~~

~~Mitigating direct environmental impacts.~~

~~1. If an applicant elects to provide payment to mitigate any assessed adverse direct environmental impact of a proposed site, corridor, route, or facility, the applicant shall make the payment to the agriculture commissioner.~~

~~2. Subject to subsection 3, the agriculture commissioner shall deposit into the environmental impact mitigation fund any moneys paid to mitigate the adverse direct environmental impacts of a proposed site, corridor, route, or facility.~~

~~3. At the applicant's request, the agriculture commissioner may provide moneys directly to an organization approved by the federal environmental law impact review committee.~~

SECTION 6. APPROPRIATION. There is appropriated out of any moneys in the environmental impact mitigation fund in the state treasury, not otherwise appropriated, the sum of $5,000,000, or so much of the sum as may be necessary, to the agriculture commissioner for the purpose of providing grants to political subdivisions for the mitigation of environmental impacts, for the biennium beginning July 1, 2019, and ending June 30, 2021.

PROPOSED AMENDMENTS TO REENGROSSED HOUSE BILL NO. 1383

That the Senate recede from its amendments as printed on pages 1456-1458 of the House Journal and pages 1192-1194 of the Senate Journal and that Reengrossed House Bill No. 1383 be amended as follows:

Page 1, line 1, replace ", a new section" with "and two new sections"

Page 1, line 2, remove ", and a new section to chapter 49-22.1"

Page 1, line 4, replace the first comma with "and"

Page 1, line 4, replace the second comma with "and"

Page 1, line 5, remove ", 49-22.1-03, and 49-22.1-09"

Page 1, line 8, remove "to the budget section; to provide an appropriation"

Page 1, line 20, overstrike "One individual appointed by the lignite energy council;"

Page 1, overstrike lines 21 through 23

Page 1, line 24, overstrike "j. One individual appointed by the North Dakota soybean growers association;"

Page 2, line 1, overstrike "k. One individual appointed by the North Dakota stockmen's association

Page 2, line 1, remove the underscored semicolon

Page 2, remove lines 2 and 3

Page 2, line 4, replace "n." with "The chairman of the public service commission or the chairman's designee;

g. The state engineer or the state engineer's designee;

h. The director of the game and fish department, or the director's designee;

i. The director of the department of transportation, or the director's designee;

j. The director of the department of environmental quality, or the director's designee;

k."

Page 2, line 4, remove "and"

Page 2, line 5, replace "o." with "l."

Page 2, line 6, after "cooperatives" insert: ";

m. Two individuals from the agricultural production community appointed by the commissioner;

n. Two individuals from the conservation community appointed by the commissioner;

o. Two individuals from the wind energy development community appointed by the commissioner;

p. Two individuals from the crop community appointed by the commissioner;

q. Two individuals from the animal agriculture community appointed by the commissioner; and

r. Two individuals from the energy community appointed by the commissioner"

Page 2, line 9, replace "**budget section**" with "**legislative management**"

Page 2, line 11, remove "The moneys accumulated in the environmental impact mitigation fund must be"

Page 2, line 12, replace "allocated as provided by law and as appropriated by the legislative assembly" with "There is created in the state treasury the environmental impact mitigation fund. The fund consists of all moneys deposited in the fund under section 5 of this Act. All moneys in the fund are appropriated to the commissioner on a continuing basis"

Page 2, line 13, remove the underscored colon

Page 2, remove lines 14 and 15

Page 2, line 16, replace "b. To" with "to"

Page 2, line 16, after "by" insert "wind"

Page 2, line 17, remove "; and"

Page 2, remove line 18

Page 2, line 19, replace "wetlands" with "as set forth under subsection 2"

Page 2, line 21, remove ", wildlife biologists,"

Page 2, replace lines 22 through 26 with "or engineers for relevant services to implement mitigation required from the impact of wind energy development; and"

Page 2, line 27, remove ", restoration,"

Page 2, line 27, remove "land, water resources, or wildlife"

Page 2, line 28 replace "habitats adversely impacted directly by" with "adverse impacts from wind"

Page 2, line 28, remove "; and"

Page 2, remove line 29

Page 2, line 30, remove "as determined by the advisory board"

Page 3, line 1, remove "The commissioner is not subject to chapter 54-44.4 when contracting for services"

Page 3, remove line 2

Page 3, line 3, remove "4."

Page 3, line 5, replace "5." with "4."

Page 3, line 7, replace "6." with "5."

Page 3, line 8, remove "at least one regular meeting each year and additional"

Page 3, line 10, replace "presiding officer" with "chairman"

Page 3, line 12, replace "7." with "6."

Page 3, line 15, replace "8." with "7."

Page 3, line 16, remove "budget section of the"

Page 3, remove lines 17 and 18

Page 4, after line 21 insert:

"1."

Page 4, remove the overstrike over lines 22 and 23

Page 4, line 24, remove "1. To"

Page 4, line 24, remove "in"

Page 4, line 24, remove ", the commission"

Page 4, line 25, remove "shall consider"

Page 5, line 3, remove the overstrike over "~~and indirect~~"

Page 5, line 18, remove "In the evaluation and designation of sites, corridors, and routes, the commission may"

Page 5, replace lines 19 through 23 with "The commission may not condition the issuance of a certificate or permit on the applicant providing a mitigation payment assessed or requested by another state agency or entity to offset a negative impact on wildlife habitat."

Page 5, line 27, replace "If an applicant elects to provide" with "An applicant may elect to provide"

Page 5, line 28, replace "impact" with "impacts"

Page 5, line 28, remove ", the applicant shall"

Page 5, line 29, remove "make the payment to the agriculture commissioner"

Page 5, line 29, after the underscored period insert "The applicant may elect to provide the payment to the agriculture commissioner."

Page 6, line 1, replace "Subject to subsection 3, the" with "The"

Page 6, remove lines 4 through 31

Page 7, remove lines 1 through 30

Page 8, replace lines 1 through 15 with:

"**SECTION 6.** A new section to chapter 49-22 of the North Dakota Century Code is created and enacted as follows:

Project comment letter prohibited.

The commission may not request or accept from the game and fish department a project comment letter or any other documentation relating to any adverse direct or indirect environmental or wildlife impact of a proposed site, corridor, route, or facility for purposes of mitigation."

Renumber accordingly

Sixty-sixth
Legislative Assembly
of North Dakota

SECOND ENGROSSMENT

REENGROSSED HOUSE BILL NO. 1383

Introduced by

Representatives Brandenburg, Boe, Headland, Howe, D. Johnson, Schmidt

Senators Dotzenrod, Erbele, Luick, J. Roers, Rust, Wanzek

A BILL for an Act to create and enact a new section to chapter 4.1-01~~,~~ and a new section to chapter 49-22~~, and a new section to chapter 49-22.1~~ of the North Dakota Century Code, relating to the creation of an environmental impact mitigation fund and to mitigating direct environmental impacts; to amend and reenact subsection 1 of section 4.1-01-18, sections 49-22-05.1~~,~~ and 49-22-09, ~~49-22.1-03, and 49-22.1-09~~and subsection 4 of section 49-22-16 of the North Dakota Century Code, relating to the federal environmental law impact review committee, exclusion and avoidance areas ~~and~~, the factors considered by the public service commission when evaluating and designating sites, corridors, and routes, and state agency rules; to provide for a report to the ~~budget section~~legislative management; to provide an appropriation; and to provide a continuing appropriation.

BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF NORTH DAKOTA:

SECTION 1. AMENDMENT. Subsection 1 of section 4.1-01-18 of the North Dakota Century Code is amended and reenacted as follows:

1. The federal environmental law impact review committee consists of:
   a. The commissioner, who shall serve as the chairman;
   b. The governor or the governor's designee;
   c. The majority leader of the house of representatives, or the leader's designee;
   d. The majority leader of the senate, or the leader's designee;
   e. One member of the legislative assembly from the minority party, selected by the chairman of the legislative management;
   f. ~~One individual appointed by the lignite energy council;~~
   ~~g.~~ One individual appointed by the North Dakota corn growers association;
   ~~h.~~g. One individual appointed by the North Dakota grain growers association;
   ~~i. One individual appointed by the North Dakota petroleum council;~~

~~j.~~h. One individual appointed by the North Dakota soybean growers association; ~~and~~

~~k.~~i. One individual appointed by the North Dakota stockmen's association;

~~l.~~j. One individual appointed by the North Dakota farm bureau;

~~m.~~k. One individual appointed by the North Dakota farmers union;

~~n.~~l. The chairman of the public service commission or the chairman's designee;

m. The state engineer or the state engineer's designee;

n. The director of the game and fish department, or the director's designee;

o. The director of the department of transportation, or the director's designee;

p. The director of the department of environmental quality, or the director's designee;

q. One representative of an investor-owned utility companies; ~~and~~

~~o.~~r. One representative from the North Dakota association of rural electric cooperatives; and

s. Two individuals from the energy community appointed by the commissioner.

SECTION 2. A new section to chapter 4.1-01 of the North Dakota Century Code is created and enacted as follows:

Environmental impact mitigation fund - Report to ~~budget section~~legislative management - Continuing appropriation.

1. ~~The moneys accumulated in the environmental impact mitigation fund must be allocated as provided by law and as appropriated by the legislative assembly~~There is created in the state treasury the environmental impact mitigation fund. The fund consists of all moneys deposited in the fund under section 5 of this Act. All moneys in the fund are appropriated to the commissioner on a continuing basis for distribution by the agriculture commissioner~~:~~

~~a. To political subdivisions and state agencies to offset impacts of energy development to agricultural land;~~

~~b. To~~ to landowners for the mitigation of agricultural land impacted by ~~energy~~ development~~; and~~

~~c. To landowners of agricultural land who are subject to excessive mitigation of wetlands~~ as set forth under subsection 2.

2. Funding may be used only for:

a. Contracting for consultation with environmental scientists~~, wildlife biologists, biologists, soil scientists, range scientists, engineers, economists, or scientists in any other field determined to be relevant for services including the evaluation, assessment, and analysis of the physical composition and potential chemical properties of land determined to be impacted by energy development or land to be considered for mitigation;~~ or engineers for relevant services to implement mitigation required from the impact of development; and

b. Reclamation~~, restoration,~~ or mitigation of ~~land, water resources, or wildlife habitats adversely impacted directly by energy~~adverse impacts from development~~: and~~

~~c. Offsetting or defraying costs of landowner mitigation in qualifying circumstances as determined by the advisory board~~.

3. The commissioner is not subject to chapter 54-44.4 when contracting for services under this chapter.

4. The federal environmental law impact review committee shall establish criteria for disbursement of environmental impact funds.

5. The commissioner shall make disbursements based upon the determinations made by the federal environmental law impact review committee.

6. For purposes of this section, the federal environmental law impact review committee shall hold ~~at least one regular meeting each year and additional~~ meetings as the chairman determines necessary at a time and place set by the chairman. Upon written request of any four members, the presiding officer shall call a special meeting of the committee.

7. The federal environmental law impact review committee shall make determinations for the disbursement of grants in accordance with subsection 2 and provide those determinations to the commissioner.

8. The federal environmental law impact review committee shall provide a biennial report to the ~~budget section of the~~ legislative management.

~~9. All moneys in the environmental impact mitigation fund are appropriated to the commissioner on a continuing basis for the purposes set forth under subsection 2.~~

SECTION 3. AMENDMENT. Section 49-22-05.1 of the North Dakota Century Code is amended and reenacted as follows:

49-22-05.1. Exclusion and avoidance areas - Criteria.

1. The commission shall develop criteria to be used in identifying exclusion and avoidance areas and to guide the site, corridor, and route suitability evaluation and designation process. The criteria also may include an identification of impacts and policies or practices which may be considered in the evaluation and designation process.
2. The commission may not identify prime farmland, unique farmland, or irrigated land as exclusion or avoidance areas when evaluating and designating geographical areas for site, corridor, or route suitability.
3. Except for electric transmission lines in existence before July 1, 1983, areas within five hundred feet [152.4 meters] of an inhabited rural residence must be designated avoidance areas. This criterion does not apply to a water pipeline. The five hundred foot [152.4 meter] avoidance area criteria for an inhabited rural residence may be waived by the owner of the inhabited rural residence in writing.

~~3.~~4. Areas less than one and one-tenth times the height of the turbine from the property line of a nonparticipating landowner and less than three times the height of the turbine or more from an inhabited rural residence of a nonparticipating landowner, must be excluded in the consideration of a site for a wind energy conversion area, unless a variance is granted. The commission may grant a variance if an authorized representative or agent of the permittee, the nonparticipating landowner, and affected parties with associated wind rights file a written agreement expressing the support of all parties for a variance to reduce the setback requirement in this subsection. A nonparticipating landowner is a landowner that has not signed a wind option or an easement agreement with the permittee of the wind energy conversion facility as defined in chapter 17-04. A local zoning authority may require setback distances greater than those required under this subsection. For purposes of this subsection, "height of the turbine" means the distance from the base of the wind turbine to the turbine blade tip when it is in its highest position.

SECTION 4. AMENDMENT. Section 49-22-09 of the North Dakota Century Code is amended and reenacted as follows:

49-22-09. Factors to be considered in evaluating applications and designation of sites, corridors, and routes.

1. The commission shall be guided by, but is not limited to, the following considerations, where applicable, to

~~1.~~ ~~To~~ aid ~~in~~ the evaluation and designation of sites, corridors, and routes, ~~the commission shall consider~~:

~~1.~~ a. Available research and investigations relating to the effects of the location, construction, and operation of the proposed facility on public health and welfare, natural resources, and the environment.

~~2.~~ b. The effects of new electric energy conversion and electric transmission technologies and systems designed to minimize adverse environmental effects.

~~3.~~ c. The potential for beneficial uses of waste energy from a proposed electric energy conversion facility.

~~4.~~ d. Adverse direct and indirect environmental effects that cannot be avoided should the proposed site or route be designated.

~~5.~~ e. Alternatives to the proposed site, corridor, or route which are developed during the hearing process and which minimize adverse effects.

~~6.~~ f. Irreversible and irretrievable commitments of natural resources should the proposed site, corridor, or route be designated.

~~7.~~ g. The direct and indirect economic impacts of the proposed facility.

~~8.~~ h. Existing plans of the state, local government, and private entities for other developments at or in the vicinity of the proposed site, corridor, or route.

~~9.~~ i. The effect of the proposed site or route on existing scenic areas, historic sites and structures, and paleontological or archaeological sites.

~~10.~~ j. The effect of the proposed site or route on areas ~~which are~~ unique because of biological wealth or because ~~they~~the areas are habitats for rare and endangered species.

~~11.~~ k. Problems raised by federal agencies, other state agencies, and local entities.

2. ~~In the evaluation and designation of sites, corridors, and routes, the commission may not:~~

~~a. Require payment for mitigation of any assessed adverse indirect environmental effects or impacts; or~~

~~b. Require payment to a third-party nongovernmental organization for any assessed adverse direct or indirect environmental effects or impacts.~~The commission may not condition the issuance of a certificate or permit on the applicant providing a mitigation payment assessed or requested by another state agency or entity to offset a negative impact on wildlife habitat.

SECTION 5. A new section to chapter 49-22 of the North Dakota Century Code is created and enacted as follows:

Mitigating direct environmental impacts.

1. ~~If an applicant elects to provide~~An applicant may elect to provide payment to mitigate any assessed adverse direct environmental ~~impact~~impacts of a proposed site, corridor, route, or facility~~, the applicant shall make the payment to the agriculture commissioner~~. The applicant may elect to provide the payment to the agriculture commissioner.

2. ~~Subject to subsection 3, the~~The agriculture commissioner shall deposit into the environmental impact mitigation fund any moneys paid to mitigate the adverse direct environmental impacts of a proposed site, corridor, route, or facility.

~~3. At the applicant's request, the agriculture commissioner may provide moneys directly to an organization approved by the federal environmental law impact review committee.~~

~~**SECTION 6. AMENDMENT.** Section 49-22.1-03 of the North Dakota Century Code is amended and reenacted as follows:~~

~~**49-22.1-03. Exclusion and avoidance areas - Criteria.**~~

~~1. The commission shall develop criteria to be used in identifying exclusion and avoidance areas and to guide the site, corridor, and route suitability evaluation and designation process.~~

~~2. The commission may not identify prime farmland, unique farmland, or irrigated land as exclusion or avoidance areas when evaluating and designating geographical areas for site, corridor, or route suitability.~~

3. Except for oil and gas transmission lines in existence before July 1, 1983, areas within five hundred feet [152.4 meters] of an inhabited rural residence must be designated avoidance areas.

a. This criterion does not apply to a water pipeline.

b. The five hundred foot [152.4 meter] avoidance area criteria for an inhabited rural residence may be waived by the owner of the inhabited rural residence in writing.

c. The criteria also may include an identification of impacts and policies or practices which may be considered in the evaluation and designation process.

SECTION 7. AMENDMENT. Section 49-22.1-09 of the North Dakota Century Code is amended and reenacted as follows:

49-22.1-09. Factors to be considered in evaluating applications and designation of sites, corridors, and routes.

The commission is guided by, but is not limited to, the following considerations, when applicable, to

1. To aid in the evaluation and designation of sites, corridors, and routes, the commission shall consider:

1. a. Available research and investigations relating to the effects of the location, construction, and operation of the proposed facility on public health and welfare, natural resources, and the environment.

2. b. The effects of new gas or liquid energy conversion and gas or liquid transmission technologies and systems designed to minimize adverse environmental effects.

3. c. The potential for beneficial uses of waste energy from a proposed gas or liquid energy conversion facility.

4. d. Adverse direct and indirect environmental effects that cannot be avoided should the proposed site or route be designated.

5. e. Alternatives to the proposed site, corridor, or route that are developed during the hearing process and which minimize adverse effects.

6. f. Irreversible and irretrievable commitments of natural resources should the proposed site, corridor, or route be designated.

7. g. The direct and indirect economic impacts of the proposed facility.

~~8. h. Existing plans of the state, local government, and private entities for other developments at or in the vicinity of the proposed site, corridor, or route.~~

~~9. i. The effect of the proposed site or route on existing scenic areas, historic sites and structures, and paleontological or archaeological sites.~~

~~10. j. The effect of the proposed site or route on areas that are unique because of biological wealth or because the site or route is a habitat for rare and endangered species.~~

~~11. k. Problems raised by federal agencies, other state agencies, and local entities.~~

~~2. In the evaluation and designation of sites, corridors, and routes, the commission may not:~~

~~a. Require payment for mitigation of any assessed adverse indirect environmental effects or impacts; or~~

~~b. Require payment to a third party nongovernmental organization for any assessed adverse direct or indirect environmental effects or impacts.~~

~~**SECTION 8.** A new section to chapter 49-22.1 of the North Dakota Century Code is created and enacted as follows:~~

~~**Mitigating direct environmental impacts.**~~

~~1. If an applicant elects to provide payment to mitigate any assessed adverse direct environmental impact of a proposed site, corridor, route, or facility, the applicant shall make the payment to the agriculture commissioner.~~

~~2. Subject to subsection 3, the agriculture commissioner shall deposit into the environmental impact mitigation fund any moneys paid to mitigate the adverse direct environmental impacts of a proposed site, corridor, route, or facility.~~

~~3. At the applicant's request, the agriculture commissioner may provide moneys directly to an organization approved by the federal environmental law impact review committee.~~

SECTION 6. AMENDMENT. Subsection 4 of section 49-22-16 of the North Dakota Century Code is amended and reenacted as follows:

4. ~~No~~A site or route ~~shall~~may not be designated which violates the rules of any state agency. A state agency with jurisdiction over any aspect of a proposed facility shall present the position of the agency at least thirty days before the public hearing on an

application for a certificate, a permit, or a waiver, which position ~~shall~~ clearly must state whether the site, corridor, or route being considered for designation will be in compliance with ~~such~~the agency's rules. For purposes of this chapter it ~~shall be~~is presumed ~~that~~ a proposed facility will be in compliance with a state agency's rules if ~~such~~the agency fails to present its position on the proposed site, corridor, or route at least thirty days before the appropriate public hearing.

SECTION 7. APPROPRIATION. There is appropriated out of any moneys in the environmental impact mitigation fund in the state treasury, not otherwise appropriated, the sum of $5,000,000, or so much of the sum as may be necessary, to the agriculture commissioner for the purpose of providing grants to political subdivisions for the mitigation of environmental impacts, for the biennium beginning July 1, 2019, and ending June 30, 2021.

Mueller, Elisha K.

From: Dyke, Steve R.
Sent: Thursday, November 2, 2017 8:12 AM
To: Johnson, Sandra K.; Mueller, Elisha K.; Schumacher, John D.
Subject: FW: Foxtail wind project

Fyi.

From: Wells, Kimberly [mailto:Kimberly.Wells@nexteraenergy.com]
Sent: Wednesday, November 1, 2017 1:42 PM
To: Dyke, Steve R. <sdyke@nd.gov>; Christopher.Farmer@dnvgl.com
Cc: Link, Greg W. <glink@nd.gov>
Subject: RE: Foxtail wind project

Hi Steve,

I just left you a vsmg to follow up, so give me a call when you can. You are correct we have our Foxtail hearing on 11/20. I thought I had originally shared that via email with you and Greg and Kevin, but if not, that certainly wasn't intentional.

I would like to check in briefly about the letter before you issue if possible. We anticipate it would address your comments shared via email, but would also hope that provides an acknowledgement of our collaborative efforts to date. The email comments didn't really address that context or our collaboration, so that would be a desirable component from our view to attempt capturing.

Kim

From: Dyke, Steve R. [mailto:sdyke@nd.gov]
Sent: Wednesday, November 01, 2017 1:13 PM
To: Wells, Kimberly; Christopher.Farmer@dnvgl.com
Cc: Link, Greg W.
Subject: Foxtail wind project

Kim & Christopher:

It's come to our attention that the Foxtail project is having a public hearing on Nov 20. We do not plan on attending the hearing. We do however, plan on providing the North Dakota PSC with a formal letter outlining our participation and correspondence with Nextera on this project. While still in draft, we anticipate the letter will cover some of the issues brought forth in our Sept 19 email to you. If you would like to discuss this further, feel free to call me.

Steve

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Foxtail Wind, LLC **Case No. PU-17-284**
Foxtail Wind Energy Center – Dickey County
Siting Application

NOTICE OF FILING AND NOTICE OF HEARING

October 4, 2017

A **public hearing** on the application for Case No. PU-17-284 is **scheduled for November 20, 2017, at 11:00 a.m. Central Time, at the Fireside Restaurant, 415 1st Ave N, Ellendale, North Dakota 58436.**

On July 17, 2017, Foxtail Wind, LLC filed an application for a Certificate of Site Compatibility to authorize construction of a proposed 150 MW Foxtail Wind Energy Center in Dickey County, North Dakota as shown on the attached map. The issues to be considered in this matter are:

1. Will the location, construction, and operation of the proposed facilities produce minimal adverse effects on the environment and upon the welfare of the citizens of North Dakota?

2. Are the proposed facilities compatible with the environmental preservation and the efficient use of resources?

3. Will the proposed facility locations minimize adverse human and environmental impact while ensuring continuing system reliability and integrity and ensuring that energy needs are met and fulfilled in an orderly and timely fashion?

For more information contact the Public Service Commission, State Capitol, Bismarck, North Dakota 58505, 701-328-2400; or Relay North Dakota, 1-800-366-6888 TTY. If you require any auxiliary aids or services, such as readers, signers, or Braille materials, please notify the Commission.

PUBLIC SERVICE COMMISSION

Brian Kroshus	Randy Christmann	Julie Fedorchak
Commissioner	Chairman	Commissioner

GOVERNOR, Doug Burgum
DIRECTOR, Terry Steinwand
DEPUTY, Scott A. Peterson

"VARIETY IN HUNTING AND FISHING"

NORTH DAKOTA GAME AND FISH DEPARTMENT

100 NORTH BISMARCK EXPRESSWAY BISMARCK, NORTH DAKOTA 58501-5095 PHONE 701-328-6300 FAX 701-328-6352

November 6, 2017

ND Public Service Commission
600 E. Boulevard, Dept. 408
Bismarck, ND 58505-0480

RE: Proposed Foxtail Wind Farm Project
Dickey County, North Dakota

As the pressures of energy development on North Dakota's landscape increase, the North Dakota Game and Fish Department (Department) entered into a collaborative effort with The US Fish and Wildlife Service and energy partners over the last year with the goal of developing state specific wind energy guidelines that ensure the viability and sustainability of North Dakota's public trust wildlife resources are appropriately addressed. NextEra has been a key player in this collaboration and their cooperation, input, and time has been of great value to this process.

During this transition as new guidelines are being created, the Department has committed to assisting each individual developer with incorporating both the previous standards of wind development and the new state guidelines. On September 19th, 2017, the Department contacted NextEra Energy Resources, LLC about their Wildlife Conservation Strategy (WCS). The Department expressed a number of concerns on the WCS as presented (see enclosed email) but is unaware if any have been addressed to date.

Above all, the Department reiterated its concerns of the deleterious effects habitat loss and continued fragmentation of native, unbroken prairie has on many of the state's wildlife and, in particular, the majority of the 115 Species of Conservation Priority. The small remaining tracts of unbroken prairie are becoming increasingly rare and are, therefore, extremely vital to a vast number of declining bird, small mammal, amphibian, reptile, and pollinator species, as well as North Dakota's highly prized game species. Subsequently, we have determined unbroken prairie to be one of the highest valued resources in our state.

A considerable portion of the project area is composed of this vital ecosystem and the Department has urged NextEra address the loss of unbroken prairie, and the services it provides to an array of North Dakota wildlife, due to the project. The Department suggested NextEra develop an offset package for the permanent impact of roads and turbine pads that are to be constructed within unbroken prairie habitat ≥ 160 acres and any CRP-SAFE tracts (a program designed to maintain or increase populations of high-value or high priority wildlife species). The Department recommended that this offset package include indirect effects of the fragmentation of the unbroken prairie habitat of up to 100 meters from new or improved roads and 200 meters of turbine sites.

In summary, the Department neither stands in opposition nor support of the project, but believes addressing these issues and moving forward with the creation of an offset package is essential as NextEra continues to develop a responsible project on the North Dakota landscape.

Sincerely,

Greg Link
Chief, Conservation and Communications Division

Cc: Kimberly Wells, NextEra Energy Resources
ND Office of the Governor
Kevin Shelley, US Fish and Wildlife Service

Kim,

The following are the North Dakota Game and Fish Department's comments on the Draft Foxtail Wildlife Conservation Strategy:

- There are 115 Species of Conservation Priority (SCP) identified in the 2015 North Dakota State Wildlife Action Plan (SWAP). The WCS states there are 100, which is the number from the 2005 plan.
- In Section 2.5 State Protection, only the SCP are mentioned. Note that per North Dakota Century Code 20.1-04, all game birds, harmless wild birds, and their nests are protected by state law.
- For assessing risk to Whooping Crane, also utilize the Pearse et. al 2015 map of Whooping Crane stopover site use intensity: https://www.sciencebase.gov/catalog/item/56253ce5e4b0fb9a11dd3d2b. Pearse, A.T., Brandt, D.A., Harrell, W.C., Metzger, K.L., Baasch, D.M., and Hefley, T.J., 2015, Whooping crane stopover site use intensity within the Great Plains: U.S. Geological Survey Open-File Report 2015–1166, 12 p., http://dx.doi.org/10.3133/ofr20151166.
- The WSC indicates the project area does not fall within a SWAP focus area but this is untrue. The project falls within the Missouri Coteau Breaks Focus Area. https://gishubdata.nd.gov/dataset/game-and-fish-action-plan-focus-areas
- The nearest USGS BBS route is not the Edgeley route. The Danzig route (#64006) is closer and has much similar habitat to the project area, including prairie and wetlands. The Edgeley route is nearly all cropland. The Edgeley route starts 14 miles from project and ends 35 miles away (middle of route approximately 28 miles from project center); Danzig starts 26 miles from project and ends 6 miles from project (middle of route approximately 18 miles from project center). We recommend revising Table 4 with Danzig route information.
- Throughout the WCS, much emphasis is placed on Sprague's Pipit and Baird's Sparrow, but not Chestnut-collared Longspur. The Chestnut-collared Longspur is another grassland obligate species that federal and state agencies have prioritized. The Chestnut-collared Longspur has experienced steeper population declines (-85% from 1974-2014, Rosenberg et. al 2016) than Sprague's Pipit (-75%) and Baird's Sparrow (-71%). At the rate of decline, it is estimated that in 17 years the population will be half of what it is now in the Prairie Pothole landscape. Chestnut-collareds prefer moderately to heavily grazed native prairie. Rosenberg, K.V., J. A. Kennedy, R. Dettmers, R. P. Ford, D. Reynolds, J.D. Alexander, C. J. Beardmore, P. J. Blancher, R. E. Bogart, G. S. Butcher, A. F. Camfield, A. Couturier, D. W. Demarest, W. E. Easton, J.J. Giocomo, R.H. Keller, A. E. Mini, A. O. Panjabi, D. N. Pashley, T. D. Rich, J. M. Ruth, H. Stabins, J. Stanton, T. Will. 2016. Partners in Flight Landbird Conservation Plan: 2016 Revision for Canada and Continental United States. Partners in Flight Science Committee. 119 pages.
- The spring avian survey period (17-March to 11 June) was insufficient for detecting breeding birds. The key time frame for detecting breeding grassland birds is May 1 – July 15. For example, Sprague's Pipits have a bimodal display period, with two general time frames of late April – mid May and again from mid-June – early August.
- The NDGF has not yet received the GIS data for eagle and other raptor nests discovered during the raptor surveys.
- The baseline habitat assessment separates grassland/herbaceous and hay/pasture (land cover), but does not specify which of each category is unbroken.
- The habitat assessment solely focused on two ESA Lepidoptera species. However, this assessment is meant to be a proactive, rather than reactive, approach and SWAP species of concern should be considered when evaluating the presence of native habitat.

- Moving forward, it will be important to know exactly how much unbroken prairie is going to be impacted by development. Subjective statements such as "high quality prairie could be avoided" don't help quantify the actual loss of the resources.
- As for the topic of quality, it is important to remember that the prairie changes both seasonally and annually. Climate, natural disturbance, and grazing pressure all impact the physical and biological aspects of the prairie, in both negative and positive ways. A prairie is not a stagnant ecosystem and a single assessment of its 'quality' tells us little to nothing of its true value to wildlife.
- The offsets mentioned only included re-seeding temporary disturbance with native species and replacing any tree or shrub lost due to development according to PSC; however, there is no mention of any type of offset for the permanent loss of the resources.
- Two of the turbine locations, #38 and #44, appear to be sited on CRP-SAFE tracts. This CRP program is designed to maintain or increase populations of high-value or high priority wildlife species. We recommend seeking alternative sites on non-SAFE sites but not on unbroken grassland.
- The WCS states that: "Much of the land in the Project area is used for cattle ranching and agriculture and is thus already disturbed or fragmented." At face value this comment suggests that grazing causes fragmentation of the landscape. If that is the intended message, we do not agree. We suggest this statement be rewritten or fleshed out to explain its intent.

Figure 8 is the most important map in the document. This map illustrates the vast amount of contiguous, unbroken grassland in the project area. It is nearly an exact match to where we have spatially modeled remaining unbroken grassland. We recommend an offset package be developed for the permanent impact of roads and turbine pads that will be constructed within "Native Prairie Habitat ≥ 160 acres" and any CRP-SAFE tracts. The offset package should include indirect effects of the fragmentation of the native prairie habitat of up to 100 meters from new or improved roads and 200 meters of turbine site.

Thank you and let us know if you'd like to discuss any of these comments further.

Sandy

Sandy Johnson
Conservation Biologist
North Dakota Game and Fish Department
100 N. Bismarck Expwy.
Bismarck, ND 58501-5095
Phone: 701-328-6382
sajohnson@nd.gov
http://gf.nd.gov/

Mueller, Elisha K.

From: Mueller, Elisha K.
Sent: Tuesday, November 7, 2017 4:49 PM
To: Kimberly.Wells@NEE.com
Cc: Link, Greg W. (glink@nd.gov); Dyke, Steve R. (sdyke@nd.gov)
Subject: Letter to PSC
Attachments: Foxtail PSC Official Letter.pdf

Hi Kimberly,

Attached you will find a copy of our official letter to the Public Service Commission. A hard copy is on its way to you via snail mail as well.

Please feel free to reach out if you would like to discuss further.

Elisha Mueller
Conservation Biologist
North Dakota Game and Fish Department
100 N. Bismarck Expwy.
Bismarck, ND 58501-5095
Phone: 701-328-6348
ekmueller@nd.gov
http://gf.nd.gov/

"If the land mechanism as a whole is good, then every part is good, whether we understand it or not. If the biota, in the course of eons, has built something we like but do not understand, who but a fool would discard seemingly useless parts? To keep every cog and wheel is the first precaution of intelligent tinkering." Aldo Leopold

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Aurora Wind Project, LLC — **Case No. PU-18-351**
345 kV Transmission Line – Williams & Mountrail
Siting Application

Aurora Wind Project, LLC — **Case No. PU-18-352**
Aurora Wind Project – Williams County
Siting Application

NOTICE OF FILINGS AND NOTICE OF CONSOLIDATED HEARING

January 9, 2019

A consolidated **Public Hearing** on the applications in Case No. PU-18-351 and Case No. PU-18-352 is scheduled for **February 25, 2019 at 9:00 a.m. CST,** at Neset Consulting Service, 6844 State Hwy 40, Tioga, ND 58852.

On September 28, 2018, in Case No. PU-18-352, Aurora Wind Project, LLC filed an application for a Certificate of Site Compatibility to construct an up-to 300 MW Aurora Wind Energy Project consisting of up to 123 wind turbine generators and associated facilities in Williams County North Dakota, as shown on the attached map.

Also on September 28, 2018, in Case No. PU-18-351, Aurora Wind Project, LLC filed combined applications for a corridor certificate and route permit to construct approximately 20 miles of 345 kV electric transmission line and associated facilities extending from the proposed Aurora Wind Project in Williams County to Basin Electric's Tande Substation in Mountrail County, North Dakota, as shown on the attached map.

Believing that there will be no prejudice to the rights of the parties or the public interest, and finding the cases involve similar questions of law and fact, the Commission is consolidating these cases for hearing under North Dakota Admin. Code section 69-02-04-04.

The issues to be considered are:

1. Will the location and operation of the proposed facilities produce minimal adverse effects on the environment and upon the welfare of the citizens of North Dakota?

2. Are the proposed facilities compatible with the environmental preservation and the efficient use of resources?

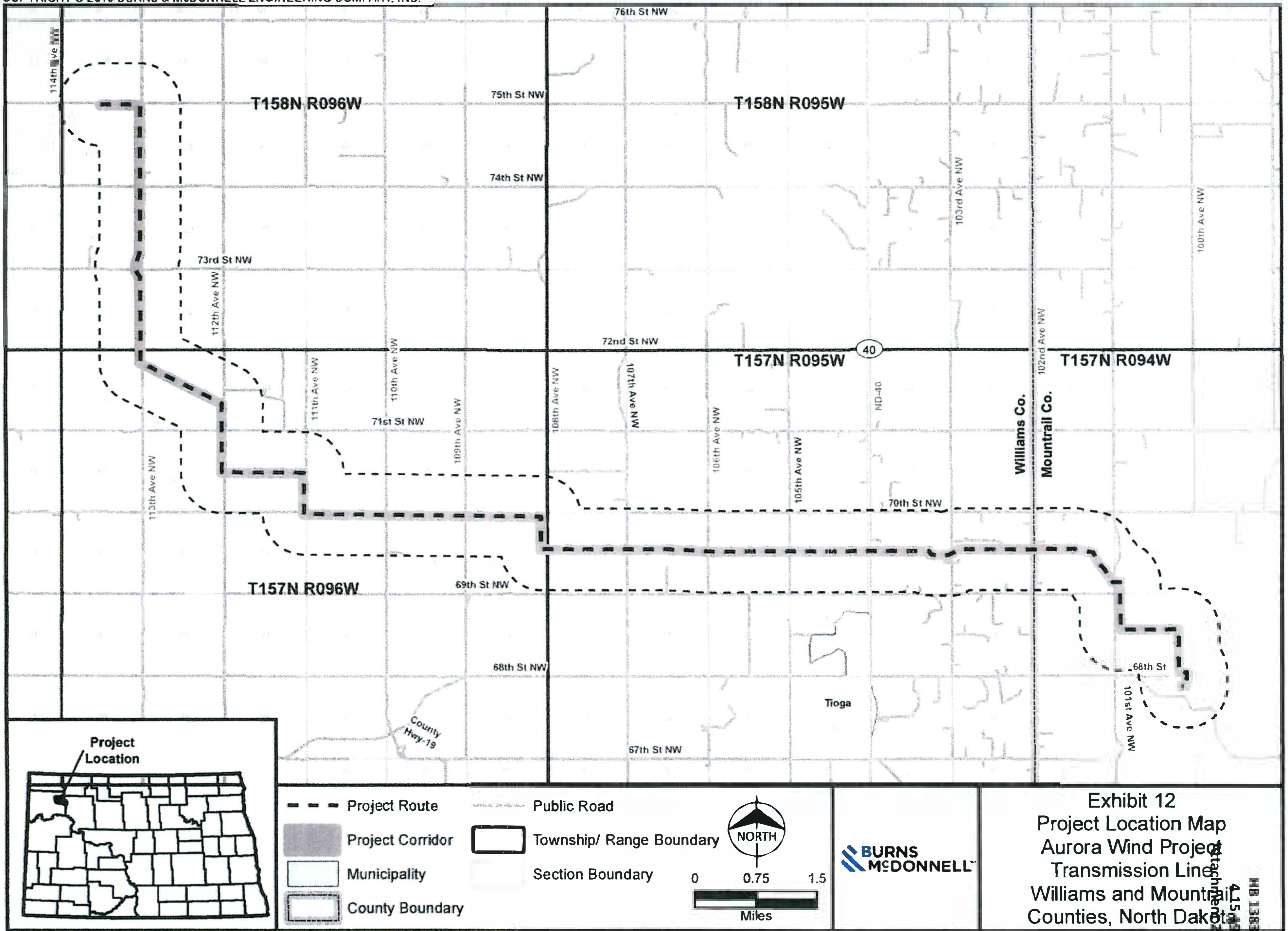
3. Will the proposed facility locations minimize adverse human and environmental impact while ensuring continuing system reliability and integrity and ensuring that energy needs are met and fulfilled in an orderly and timely fashion?

For more information contact the Public Service Commission, State Capitol, Bismarck, North Dakota 58505, 701-328-2400; or Relay North Dakota, 1-800-366-6888 TTY. If you require any auxiliary aids or services, such as readers, signers, or Braille materials, please notify the Commission at least 24 hours in advance.

PUBLIC SERVICE COMMISSION

Julie Fedorchak **Commissioner**	**Brian Kroshus** **Chairman**	**Randy Christmann** **Commissioner**

Path: Z:\Clients\ENS\TradewindEnr\104200_Aurora\Studies\Geospatial\DataFiles\ArcDocs\NDPSC_TLine_Application\NDPSC_TLine_Application_v2_Exhibit12-GenLocationB_W.mxd jdringman 9/26/2018



Source: Esri, USGS - Public Land Survey System, Tradewind, Burns & McDonnell Engineering Company, Inc.

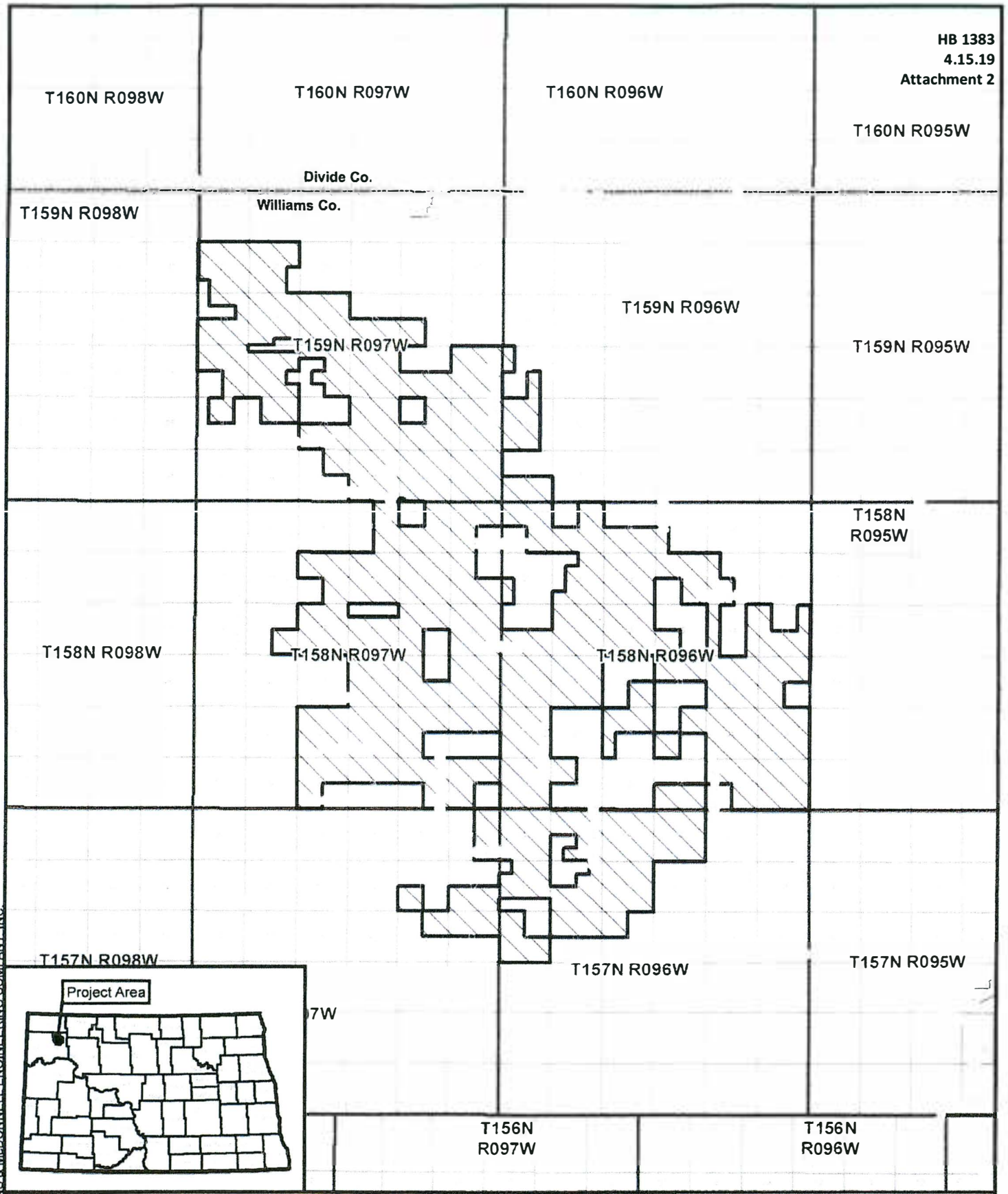


Exhibit 13
Project Location Map
Aurora Wind Project
Wind Farm
Williams County, North Dakota

BURNS McDONNELL

Source: Esri, USGS - Public Land Survey System, Tradewind, Burns & McDonnell Engineering Company, Inc.

Issued: 9/26/2018

GOVERNOR, Doug Burgum
DIRECTOR, Terry Steinwand
DEPUTY, Scott A. Peterson

"VARIETY IN HUNTING AND FISHING"

NORTH DAKOTA GAME AND FISH DEPARTMENT

100 NORTH BISMARCK EXPRESSWAY BISMARCK, NORTH DAKOTA 58501-5095 PHONE 701-328-6300 FAX 701-328-6352

December 7, 2018

ND Public Service Commission
600 E. Boulevard, Dept. 408
Bismarck, ND 58505-0480

SUBJECT: Aurora Wind Project and Associated Transmission Line in Williams and Mountrail Counties, ND

Mr. Kahl,

The North Dakota Game and Fish Department (Department) has been in discussion with proponents of the Aurora Wind Project since January of 2018. In early consultations, the Department applauded Tradewind Energy, as the majority of the project was within a relatively low sensitive area with respects to native habitats. However, we emphasized the importance of careful placement or micro-siting of turbines, roads, and other associated infrastructure, and asked that any impacts to native unbroken prairie, woodlands, and wetlands be avoided to the extent possible.

To assist the Public Service Commission (Commission) in their review of wind energy development, the Department quantifies all potential impacts to wildlife associated with turbines, roads, and other infrastructure. To do this, we use the best available science on habitat loss, avoidance, and displacement. Habitat loss has been shown to be the number one driver of species declines (Wilcove et al., 1998) and is easily quantified by calculating the total acreage of native habitats that are broken (i.e. native vegetation removed, top soil removed, wetlands filled, etc.). However, calculating avoidance and displacement is not as straightforward. Loesch et al., 2013 assessed the displacement of breeding waterfowl pairs on wetlands associated with wind farms in the Prairie Pothole Region. This study found an average rate of 21% displacement by five waterfowl species within a half mile of turbines. Shaffer and Buhl, 2016, used a Before-After-Control-Impact (BACI) method to evaluate grassland bird displacement associated with turbines. In grasslands, they found avoidance from turbines by seven grassland bird species and a 55% displacement rate by the 5th year post-construction. By using the parameters within these studies, impacts can be estimated for both grassland birds and breeding ducks, indicator species that reflect the use of habitats for a variety of other species. Using this scientific information, we believe there will be adverse environmental impacts that should be offset.

In a January 2019 meeting, Tradewind Energy acknowledged the impacts associated with this project and indicated to the Department they were developing a voluntary offset package to address the impacts to grassland and wetland habitats but would not be able to provide us with specifics prior to the hearing. The Department has been encouraged by Tradewind's commitment to mitigating their impacts and we are hopeful that a successful project can be achieved through our continued collaboration. However, until we are presented with the specific details of this offset package, it is difficult for the Department to provide a full assessment of this project.

Sincerely,

Greg Link
Chief, Conservation and Communications Division

Cc: Jennifer Dean, Tradewind Energy
Scott Larson, U.S. Fish and Wildlife Service

Mueller, Elisha K.

[redacted]m: Mueller, Elisha K.
[redacted]t: Friday, February 15, 2019 2:34 PM
To: Kahl, Steven M.
Subject: Aurora Letter
Attachments: PSC Letter.pdf

Hi Steven,

Please find attached our letter on the Aurora wind project with corrected date.

Thank you.

Elisha Mueller
Conservation Biologist
North Dakota Game and Fish Department
100 N. Bismarck Expwy.
Bismarck, ND 58501-5095
Phone: 701-328-6348
ekmueller@nd.gov
http://gf.nd.gov/

"We have fallen heirs to the most glorious heritage a people ever received, and each one must do his part if we wish to show that the nation is worthy of its good fortune." Theodore Roosevelt

GOVERNOR, Doug Burgum
DIRECTOR, Terry Steinwand
DEPUTY, Scott A. Peterson

"VARIETY IN HUNTING AND FISHING"

NORTH DAKOTA GAME AND FISH DEPARTMENT
100 NORTH BISMARCK EXPRESSWAY BISMARCK, NORTH DAKOTA 58501-5095 PHONE 701-328-6300 FAX 701-328-6352

February 7, 2019

ND Public Service Commission
600 E. Boulevard, Dept. 408
Bismarck, ND 58505-0480

SUBJECT: Aurora Wind Project and Associated Transmission Line in Williams and Mountrail Counties, ND

Mr. Kahl,

The North Dakota Game and Fish Department (Department) has been in discussion with proponents of the Aurora Wind Project since January of 2018. In early consultations, the Department applauded Tradewind Energy, as the majority of the project was within a relatively low sensitive area with respects to native habitats. However, we emphasized the importance of careful placement or micro-siting of turbines, roads, and other associated infrastructure, and asked that any impacts to native unbroken prairie, woodlands, and wetlands be avoided to the extent possible.

To assist the Public Service Commission (Commission) in their review of wind energy development, the Department quantifies all potential impacts to wildlife associated with turbines, roads, and other infrastructure. To do this, we use the best available science on habitat loss, avoidance, and displacement. Habitat loss has been shown to be the number one driver of species declines (Wilcove et al., 1998) and is easily quantified by calculating the total acreage of native habitats that are broken (i.e. native vegetation removed, top soil removed, wetlands filled, etc.). However, calculating avoidance and displacement is not as straightforward. Loesch et al., 2013 assessed the displacement of breeding waterfowl pairs on wetlands associated with wind farms in the Prairie Pothole Region. This study found an average rate of 21% displacement by five waterfowl species within a half mile of turbines. Shaffer and Buhl, 2016, used a Before-After-Control-Impact (BACI) method to evaluate grassland bird displacement associated with turbines. In grasslands, they found avoidance from turbines by seven grassland bird species and a 55% displacement rate by the 5th year post-construction. By using the parameters within these studies, impacts can be estimated for both grassland birds and breeding ducks, indicator species that reflect the use of habitats for a variety of other species. Using this scientific information, we believe there will be adverse environmental impacts that should be offset.

In a January 2019 meeting, Tradewind Energy acknowledged the impacts associated with this project and indicated to the Department they were developing a voluntary offset package to address the impacts to grassland and wetland habitats but would not be able to provide us with specifics prior to the hearing. The Department has been encouraged by Tradewind's commitment to mitigating their impacts and we are hopeful that a successful project can be achieved through our continued collaboration. However, until we are presented with the specific details of this offset package, it is difficult for the Department to provide a full assessment of this project.

Sincerely,

Greg Link
Chief, Conservation and Communications Division

Cc: Jennifer Dean, Tradewind Energy
Scott Larson, U.S. Fish and Wildlife Service

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Emmons-Logan Wind, LLC **Case No. PU-18-280**
Emmons-Logan Wind Energy Center – Emmons & Logan
Siting Application

Emmons-Logan Wind, LLC **Case No. PU-18-281**
Emmons-Logan 230 kV Transmission Line – Emmons
Siting Application

NOTICE OF FILINGS AND CONSOLIDATED HEARING

October 10, 2018

A consolidated **Public Hearing** on the applications in Case No. PU-18-280 and Case No. PU-18-281 is scheduled for **December 7, 2018 at 10:00 a.m. CST,** at the Emmons County Courthouse Auditorium, 100 4th Street NW, Linton, ND 58552

On July 19, 2018, in Case No. PU-18-280, Emmons-Logan Wind, LLC filed an application for a Certificate of Site Compatibility to construct a 298.1 MW Emmons-Logan Wind Energy Center consisting of up to 123 wind turbine generators and associated facilities in Emmons and Logan Counties, North Dakota, as shown on the attached maps.

Also on July 19, 2018, in Case No. PU-18-281, Emmons-Logan Wind, LLC filed combined applications for a corridor certificate and and route permit to construct approximately 6.85 miles of 230 kV electric transmission line and associated facilities in Emmons and Logan Counties, North Dakota, as shown on the attached map.

Believing that there will be no prejudice to the rights of the parties or the public interest, and finding the cases involve similar questions of law and fact, the Commission is consolidating these cases for hearing under North Dakota Admin. Code section 69-02-04-04.

The issues to be considered are:

1. Will the location and operation of the proposed facilities produce minimal adverse effects on the environment and upon the welfare of the citizens of North Dakota?

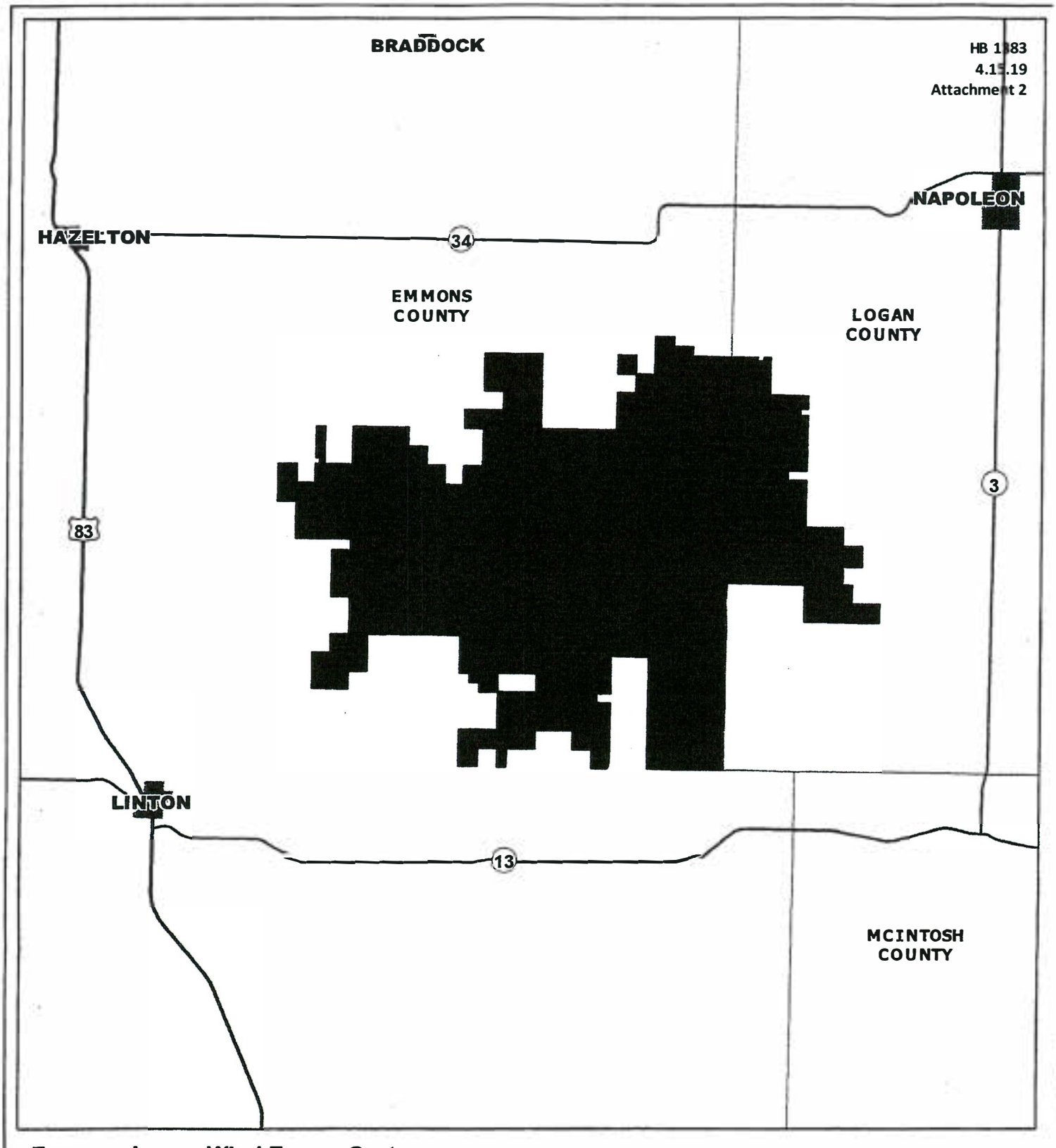
2. Are the proposed facilities compatible with the environmental preservation and the efficient use of resources?

3. Will the proposed facility locations minimize adverse human and environmental impact while ensuring continuing system reliability and integrity and ensuring that energy needs are met and fulfilled in an orderly and timely fashion?

For more information contact the Public Service Commission, State Capitol, Bismarck, North Dakota 58505, 701-328-2400; or Relay North Dakota, 1-800-366-6888 TTY. If you require any auxiliary aids or services, such as readers, signers, or Braille materials, please notify the Commission at least 24 hours in advance.

PUBLIC SERVICE COMMISSION

Brian Kroshus **Commissioner**	**Randy Christmann** **Chairman**	**Julie Fedorchak** **Commissioner**



Emmons-Logan Wind Energy Center

Proposed Project Site

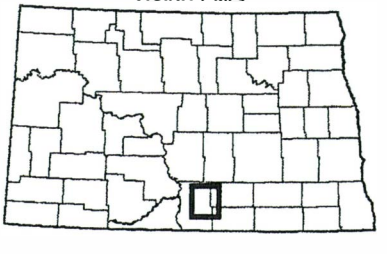
N

0 2.5 5

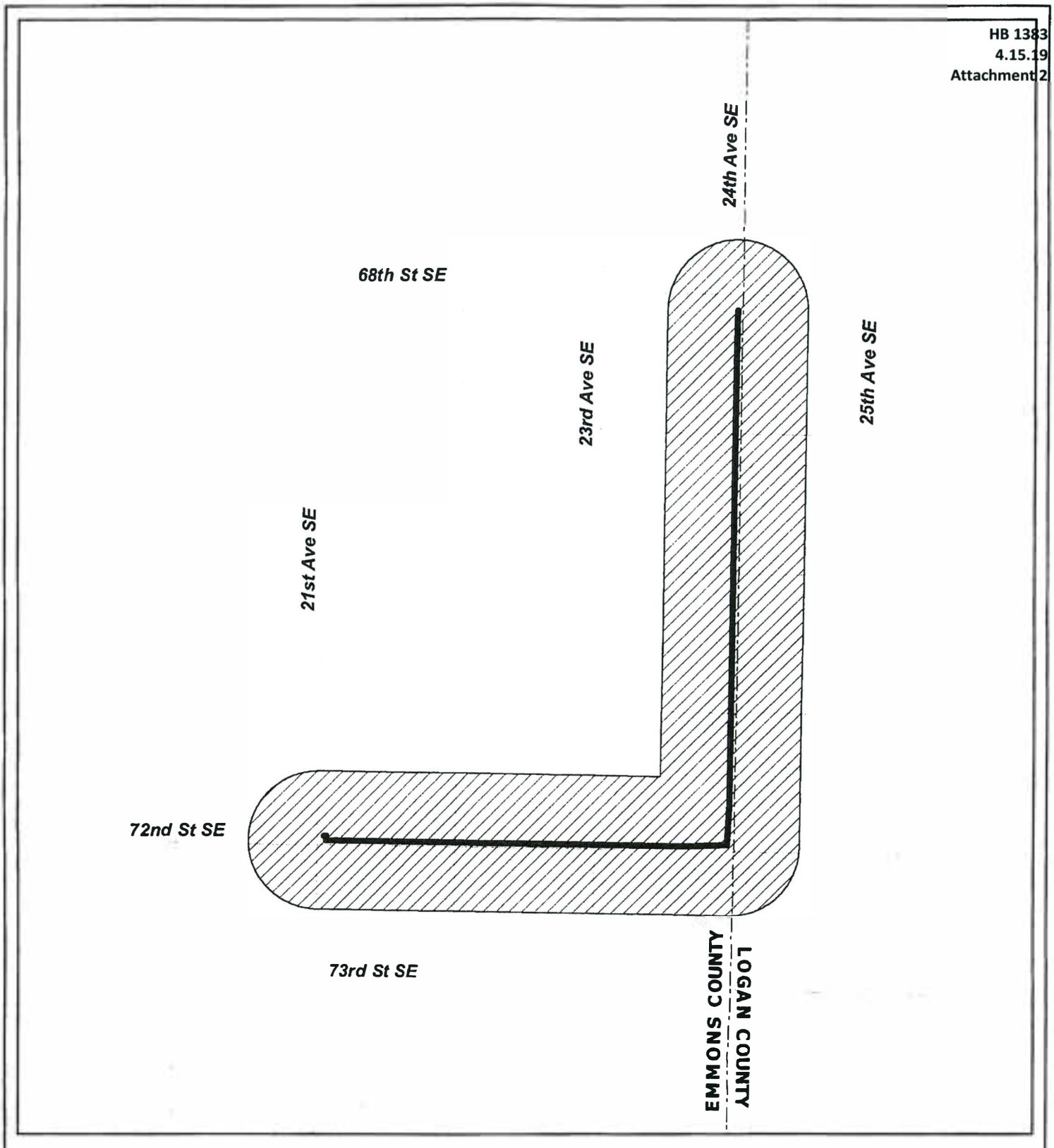
Miles

AECOM

VICINITY MAP



HB 1383
4.15.19
Attachment 2



Emmons-Logan 230 kV Transmission Line

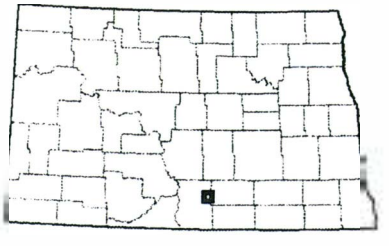
- Proposed Transmission Line Route
- Proposed Project Corridor
- County Boundary

N

0 0.5 1
Miles

AECOM

VICINITY MAP



Mueller, Elisha K.

From: Schuh, John M.
Sent: Friday, December 7, 2018 8:24 AM
To: Mueller, Elisha K.
Subject: RE: Emmons-Logan Wind

Yes, I received it. I'm forwarding it on to staff that is on the case.

Jack

From: Mueller, Elisha K. <ekmueller@nd.gov>
Sent: Friday, December 7, 2018 8:23 AM
To: Schuh, John M. <jschuh@nd.gov>
Subject: FW: Emmons-Logan Wind

Good morning John,

Attached is our letter. Feel free to reach out if you have any questions and I would also appreciate it if you could verify you received the attachment.

Thank you.
Elisha

From: Mueller, Elisha K.
Sent: Wednesday, December 5, 2018 10:58 AM
To: Nitschke, Darrell D. <dnitschk@nd.gov>
Cc: Link, Greg W. (glink@nd.gov) <glink@nd.gov>; Dyke, Steve R. (sdyke@nd.gov) <sdyke@nd.gov>; Johnson, Sandra K. (sajohnson@nd.gov) <sajohnson@nd.gov>
Subject: Emmons-Logan Wind

Good Morning,

Attached is the Department's letter on the Emmons-Logan Wind Project. Please see that it makes its way to the Commissioners as soon as possible, as it pertains to the public hearing on Friday, December 7th.

Thank you.

Elisha Mueller
Conservation Biologist
North Dakota Game and Fish Department
100 N. Bismarck Expwy.
Bismarck, ND 58501-5095
Phone: 701-328-6348
ekmueller@nd.gov
http://gf.nd.gov/

"We have fallen heirs to the most glorious heritage a people ever received, and each one must do his part if we wish to show that the nation is worthy of its good fortune." Theodore Roosevelt

GOVERNOR, Doug Burgum
DIRECTOR, Terry Steinwand
DEPUTY, Scott A. Peterson

"VARIETY IN HUNTING AND FISHING"

NORTH DAKOTA GAME AND FISH DEPARTMENT
100 NORTH BISMARCK EXPRESSWAY BISMARCK, NORTH DAKOTA 58501-5095 PHONE 701-328-6300 FAX 701-328-6352

December 7, 2018

ND Public Service Commission
600 E. Boulevard, Dept. 408
Bismarck, ND 58505-0480

Subject: Emmons-Logan Wind Energy Center and Transmission Line Project
Emmons and Logan Counties, ND

Mr. Nitschke,

The North Dakota Game and Fish Department has been in discussion with proponents of the Emmons Logan Wind Energy Center since 2017. During consultations, the Department emphasized the importance of careful placement of turbines, roads, and other associated infrastructure, avoiding to the extent possible any impacts to native unbroken prairie, woodlands, and wetlands. Based on these discussions, a number of turbines were relocated to avoid native habitats. The Department applauds the efforts made by NextEra Energy to minimize impacts to our state's Species of Conservation Priority and the habitat resources they rely on. We are pleased the proactive collaboration between the Department, the U.S. Fish and Wildlife Service, and project proponents resulted in beneficial modifications to the project.

However, because the project is located within the Missouri Coteau, an incredibly resource-rich landscape with a considerable amount of native prairie and a concentration of wetlands, it is unlikely that impacts to wildlife can be totally avoided. Though much of the project area has been significantly altered by agriculture, there is still a substantial amount of relatively unbroken native habitats. The project proponents have managed to lessen impacts to wildlife and native habitats by siting turbines on previously altered land but have not eliminated wildlife displacement in native habitat adjacent to the turbines nor the risk of collision fatalities.

In our review and analysis of impacts to wildlife, the Department quantifies both the direct and indirect impacts associated with wind energy development. To do this, we are using the best available science conducted in North Dakota on avoidance and displacement due to wind development: Loesch et al. 2013 and Shaffer and Buhl 2016. Loesch et al. 2013 assessed the displacement of breeding waterfowl pairs on wetlands associated with wind farms in the Prairie Pothole Region. This study found an average rate of 21% displacement by five waterfowl species within a half mile of turbines. Shaffer and Buhl 2016, used a Before-After-Control-Impact (BACI)

method to evaluate grassland bird displacement associated with turbines. They found avoidance from turbines by seven grassland bird species and a 55% displacement rate by the 5th year post-construction. By using the parameters within these studies, the impacts can be estimated for both grassland birds and breeding ducks, indicator species that reflect the use of habitats for a variety of other species. Using this scientific information, we believe there will be adverse indirect impacts that should be offset.

In a September 2018 meeting, NextEra Energy had indicated to the Department they would be developing a voluntary offset for the impacts to grassland and wetland habitat. In addition, the *Emmons Logan Wind Energy Project Wildlife Conservation Strategy* dated October 23, 2018 states: "Emmons-Logan Wind intends to implement measures to offset impacts to important resources, such as unbroken native prairie, that cannot be practicably avoided." The Department was encouraged by NextEra's initiative and stewardship resolve. For our overall review and ability to provide insight on the project, however, we requested on several occasions to be apprised, prior to permit application, of the specific offset measures they were proposing to provide as part of the project (see attached correspondence). After receiving no further indications or details about their offset offer, the Department contacted NextEra via email on November 28, 2018 to again ask about the status of the voluntary offset package. NextEra subsequently indicated in a November 30, 2018 email that they will not be providing a voluntary offset option until after the December 7th PSC hearing.

Thanks to the efforts by NextEra Energy to relocate turbines off unbroken prairie, the impacts to important wildlife resources have been greatly reduced in comparison to the project's original design. Nonetheless, a modest level of impacts will still be incurred for the life of this project. As indicated, NextEra Energy previously acknowledged this long-term impact and had suggested that development of offsets was appropriate. We found NextEra Energy's leadership and initiative toward addressing those impacts responsible and very promising. Because of this expectation, however, we are disappointed to hear just prior to the hearing date that NextEra's is no longer willing to voluntarily address impacts they'd earlier recognized and acknowledged. This is disheartening as it leaves this issue unresolved, especially when NextEra's expressed goals have been transparency and early resolution.

Sincerely,

Greg Link
Chief, Conservation and Communications Division

Cc: Dustin Jones, NextEra Energy
Scott Larson, U.S. Fish and Wildlife Service

GOVERNOR, Doug Burgum

DIRECTOR, Terry Steinwand
DEPUTY, Scott A. Peterson

"VARIETY IN HUNTING AND FISHING"

NORTH DAKOTA GAME AND FISH DEPARTMENT

100 NORTH BISMARCK EXPRESSWAY BISMARCK, NORTH DAKOTA58501-5095 PHONE 701-328-6300 FAX 701-328-6352

November, 2 2018

Dear Mr. Jones:

The North Dakota Game and Fish Department (Department) received your email on November 2nd discussing differing recommendations from the Department and the United States Fish and Wildlife Service (Service). We would like to formally clear up any misunderstandings on the subject.

The Department's guidance letter on the Emmons-Logan project, dated May 22, 2018, was sent out while the draft guidelines were still being developed. As such, the suggested voluntary offset package stemmed from those guidelines. On July 25th, however, the collaborative process of further developing these guidelines was halted.

Since that time, the Department has stressed the importance of following the best available science to determine if a voluntary offset package is needed and, if so, what that would look like. We concur with the Service that the best available science addressing North Dakota resources are Loesch et al. 2013 and Shaffer and Buhl 2016 and that these papers should be used to help guide you in developing a voluntary offset package. Specifically, the Department is in full agreement with the Service's statement: *"If this project proceeds, we recommend quantification of wetlands within ½ mile of turbines, of grasslands within 300 m of turbines, and then application of the displacement rates from the Loesch et al. 2013 and Shaffer and Buhl 2016 studies to determine and disclose anticipated indirect impacts. This information is needed to adequately develop an appropriate mitigation plan to offset this form of habitat loss and we encourage project developers to provide that plan as part of the project".*

If you should have any questions on the matter, please do not hesitate to reach out.

Sincerely,

Greg Link
Chief, Conservation and Communications Division

Cc: Scott Larson, US Fish and Wildlife Service
ND Public Service Commission

Johnson, Sandra K.

From: Mueller, Elisha K.
Sent: Friday, November 2, 2018 2:08 PM
To: Jones, Dustin; Dyke, Steve R.; Johnson, Sandra K.; scott_larson@fws.gov; natalie_gates@fws.gov
Cc: Link, Greg W.; Cameron, Clay; Wells, Kimberly
Subject: RE: Emmons-Logan DRAFT Wildlife Conservation Strategy
Attachments: Follow up Letter.pdf

Dustin,

Please see the letter attached to clear up any confusion.

Elisha

From: Jones, Dustin <Dustin.Jones@nexteraenergy.com>
Sent: Friday, November 2, 2018 10:00 AM
To: Dyke, Steve R. <sdyke@nd.gov>; Johnson, Sandra K. <sajohnson@nd.gov>; scott_larson@fws.gov; natalie_gates@fws.gov
Cc: Link, Greg W. <glink@nd.gov>; Mueller, Elisha K. <ekmueller@nd.gov>; Cameron, Clay <Clay.Cameron@nexteraenergy.com>; Wells, Kimberly <Kimberly.Wells@nexteraenergy.com>
Subject: RE: Emmons-Logan DRAFT Wildlife Conservation Strategy

Steve, thanks for your response. We have been working towards a voluntary offset proposal as discussed. However, we received recommendations from the USFWS on October 19th that differ from NDGFD recommendations, so that will take a little more time to incorporate. We are committed to working through the scenarios and note receiving differing recommendations with respect to offset calculation methods is challenging for an applicant with a late stage project.

We expect to provide a revised WCS, including our proposed offset package by late next week or early the follow week, then will follow-up shortly thereafter to discuss.

Dustin Jones | 737-221-1172

From: Dyke, Steve R. <sdyke@nd.gov>
Sent: Tuesday, 30 October, 2018 12:35
To: Jones, Dustin <Dustin.Jones@nexteraenergy.com>; Johnson, Sandra K. <sajohnson@nd.gov>; scott_larson@fws.gov; natalie_gates@fws.gov
Cc: Link, Greg W. <glink@nd.gov>; Mueller, Elisha K. <ekmueller@nd.gov>
Subject: RE: Emmons-Logan DRAFT Wildlife Conservation Strategy

Dustin, yes we did receive your email. While we have not had time to review the entire document, we notice that the portion of the Draft WCS for Logan-Emmons that deals with offsets and/or compensation for habitat related impacts states the following... "to be updated based on resolution with agencies". We were of the understanding that the project sponsors were conducting internal meetings and would get back to us by Halloween (Oct. 31). As we are less

than 6 weeks away from the public meeting that has been scheduled (Dec. 7) for this project, we recommend Nextera initiate these discussions ASAP?

Also, as Dept. staff will be out of the office for considerable periods of time in Nov. & Dec. I would recommend that all correspondence on Emmons/Logan and Burke include Greg, Elisha, Sandra and myself. This will help us minimize inactivity when a particular staff member is out of the office. If you have questions, feel free to contact me.

Steve

From: Jones, Dustin <Dustin.Jones@nexteraenergy.com>
Sent: Monday, October 29, 2018 6:49 PM
To: Dyke, Steve R. <sdyke@nd.gov>; Johnson, Sandra K. <sajohnson@nd.gov>; scott_larson@fws.gov; natalie_gates@fws.gov
Subject: RE: Emmons-Logan DRAFT Wildlife Conservation Strategy

CAUTION: This email originated from an outside source. Do not click links or open attachments unless you know they are safe.

Good evening, I just wanted to confirm that you received the draft WCS provided last week. Thanks.

Dustin Jones | 737-221-1172

From: Jones, Dustin
Sent: Wednesday, 24 October, 2018 05:01
To: Steve Dyke <sdyke@nd.gov>; Sandy Johnson <sajohnson@nd.gov>; scott_larson@fws.gov; natalie_gates@fws.gov
Cc: Derby, Clayton <cderby@west-inc.com>; Cameron, Clay (Clay.Cameron@nexteraenergy.com) <Clay.Cameron@nexteraenergy.com>; Lindsey (Meyers) Churchill <lindsey.meyers@aecom.com>
Subject: Emmons-Logan DRAFT Wildlife Conservation Strategy

First, thank you for your time and input at our respective meetings on Aug 22 and Sept 19. Second, please find attached for your review and comment the Draft Wildlife Conservation Strategy for the Emmons-Logan Wind Energy Project. We respectfully request comments by Nov 14. A draft mitigation strategy will be available soon for review with plans to discuss via teleconference prior to the PSC hearing scheduled for Friday, December 7. We look forward to further collaboration.

Dustin Jones | Project Manager, Environmental Services, Mid Continent Region
601 Travis, Suite 1900 | Houston, TX 77002
O 713-951-5356 | C 737-221-1172 | Dustin.Jones@nexteraenergy.com

Mueller, Elisha K.

From: Dyke, Steve R.
Sent: Monday, December 3, 2018 8:37 AM
To: Johnson, Sandra K.
Subject: FW: Logan/Emmons Project

From: Jones, Dustin <Dustin.Jones@nexteraenergy.com>
Sent: Friday, November 30, 2018 4:08 PM
To: Link, Greg W. <glink@nd.gov>
Cc: Schuh, John M. <jschuh@nd.gov>; Nitschke, Darrell D. <dnitschk@nd.gov>; Scott Larson <scott_larson@fws.gov>; Gates, Natalie <natalie_gates@fws.gov>; Dyke, Steve R. <sdyke@nd.gov>; Mueller, Elisha K. <ekmueller@nd.gov>
Subject: RE: Logan/Emmons Project

Greg,

We are still evaluating offset options. As part of our evaluation, we would like the opportunity to receive the Commission's input at the hearing. Thus, we are unable to provide additional details prior to the hearing. We have previously provided all of our wildlife reports, all requested geospatial data, and a draft of the Wildlife Conservation Strategy that details our comprehensive approach to siting including avoidance, minimization, and restoration measures. Our PSC application also includes summaries of our baseline studies and impact characterization. We remain committed to continued coordination with the wildlife agencies and will be back in touch as soon as we can after the hearing.

Sincerely,

Dustin

From: Link, Greg W. <glink@nd.gov>
Sent: Wednesday, 28 November, 2018 14:26
To: Jones, Dustin <Dustin.Jones@nexteraenergy.com>
Cc: Schuh, John M. <jschuh@nd.gov>; Nitschke, Darrell D. <dnitschk@nd.gov>; Scott Larson <scott_larson@fws.gov>; Gates, Natalie <natalie_gates@fws.gov>; Dyke, Steve R. <sdyke@nd.gov>; Mueller, Elisha K. <ekmueller@nd.gov>
Subject: Logan/Emmons Project

Dustin,

The PSC hearing date for the proposed Logan/Emmons wind project is fast approaching. In September, your company had indicated that it would be developing a voluntary offset for the impacts to grassland and wetland habitat. Your WCS for that project also referenced potential offset development. We have yet to hear anything more about the proposal you referenced. I think everyone was in agreement that, if possible, we wanted to avoid surprises and either be on the same page, or at a minimum, be apprised of your voluntary offset proposal for the Logan/Emmons project by the end of October. Obviously, that deadline has passed and we do not have word of your proposal.

Could you please provide us a status of any offset development for this project. Thank you.
G.Link

Greg Link
Chief, Conservation and Communications Division
North Dakota Game and Fish Department
100 N. Bismarck Expressway
Bismarck, ND 58501
Phone: 701-328-6331
FAX: 701-328-6352
glink@nd.gov

"To protect, conserve and enhance fish and wildlife populations and their habitats"

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Burke Wind, LLC **Case No. PU-18-302**
Burke Wind Transmission Line – Burke & Mountrail
Siting Application

Burke Wind, LLC **Case No. PU-18-344**
Burke County Wind Energy Center – Burke County
Siting Application

NOTICE OF FILINGS AND NOTICE OF CONSOLIDATED HEARING

January 23, 2019

A consolidated **Public Hearing** on the applications in Case No. PU-18-302 and Case No. PU-18-344 is scheduled for **March 8, 2019 at 9:00 a.m. CST,** at Memorial Hall, 100 Main Street NW Bowbells, ND 58721.

On August 9, 2018, in Case No. PU-18-302, Burke Wind, LLC filed combined applications for a corridor certificate and route permit to construct approximately 37 miles of 345 kV electric transmission line and associated facilities extending from the proposed Burke Wind Energy Center in Burke County to Basin Electric's Tande Substation in Mountrail County, North Dakota, as shown on the attached map.

On September 14, 2018, in Case No. PU-18-344, Burke Wind, LLC filed an application for a Certificate of Site Compatibility. On November 14, 2018, Burke Wind amended its application. Burke Wind proposes to construct an up-to 200 MW Burke County IND Energy Center of up to 76 wind turbine generators and associated facilities in Burke County North Dakota, as shown on the attached map.

Believing that there will be no prejudice to the rights of the parties or the public interest, and finding the cases involve similar questions of law and fact, the Commission is consolidating these cases for hearing under North Dakota Admin. Code section 69-02-04-04.

The issues to be considered are:

1. Will the location and operation of the proposed facilities produce minimal adverse effects on the environment and upon the welfare of the citizens of North Dakota?

2. Are the proposed facilities compatible with the environmental preservation and the efficient use of resources?

3. Will the proposed facility locations minimize adverse human and environmental impact while ensuring continuing system reliability and integrity and ensuring that energy needs are met and fulfilled in an orderly and timely fashion?

For more information contact the Public Service Commission, State Capitol, Bismarck, North Dakota 58505, 701-328-2400; or Relay North Dakota, 1-800-366-6888 TTY. If you require any auxiliary aids or services, such as readers, signers, or Braille materials, please notify the Commission at least 24 hours in advance.

PUBLIC SERVICE COMMISSION

Julie Fedorchak **Commissioner**	**Brian Kroshus** **Chairman**	**Randy Christmann** **Commissioner**

Burke Wind Transmission Line

Site Location Map

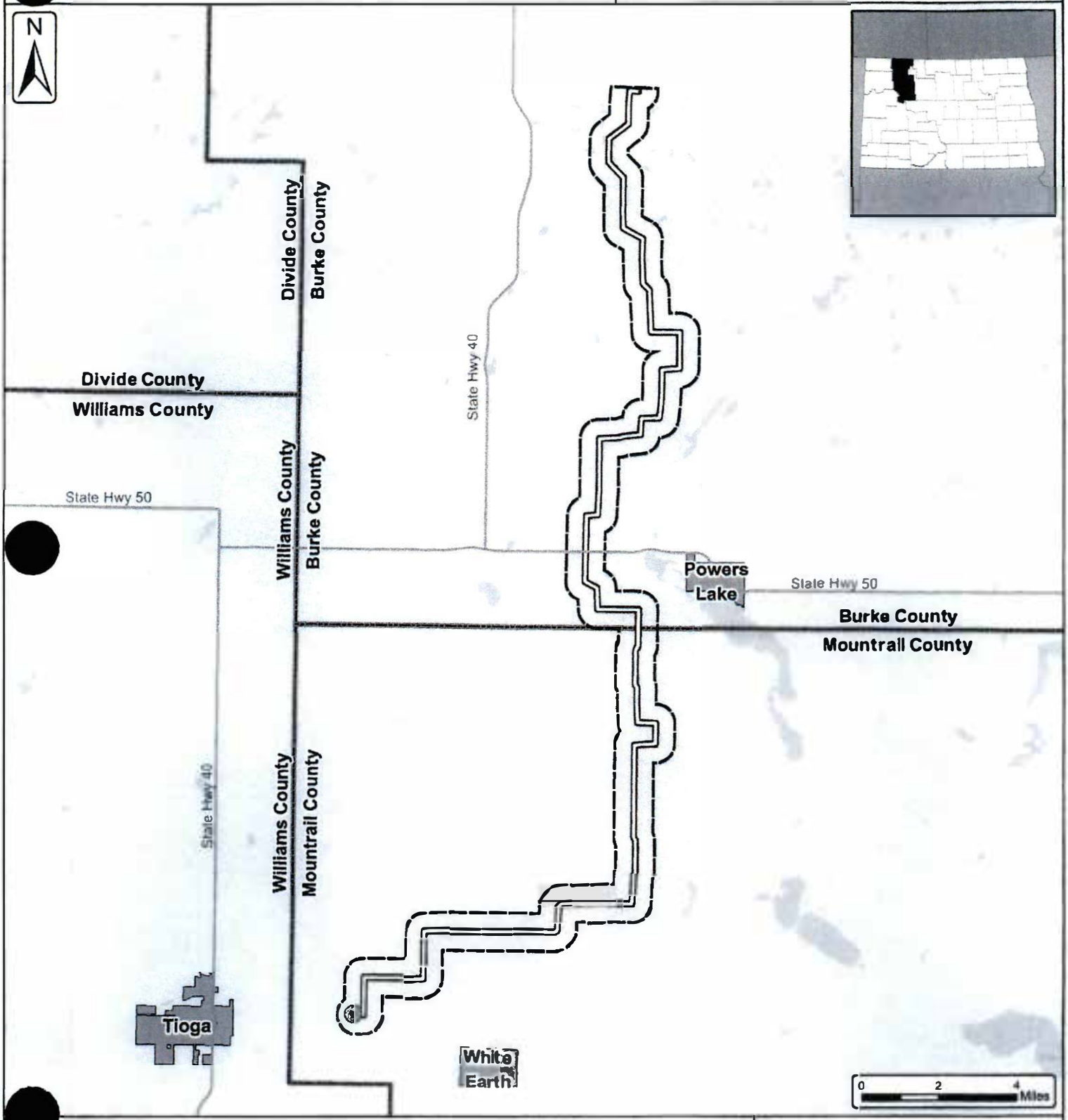
e County & Mountrail County, North Dakota

Client:
Burke Wind, LLC

Issue Date:
7/13/2018

Atwell, LLC Project:
16000947

HB 1383
4.15.19
Attachment 2



Transmission Line
Transmission Line
150 ft. Project Corridor
Transmission Line
1 Mile Study Area
Existing Tande Substation
Cities
Counties
State Highway

ATWELL

Service Layer Credits: Esri, HERE, Garmin, OpenStreetMap contributors, and the GIS user community

Burke County Wind Energy Center

Site Location Map

ke County, North Dakota

Client:

Burke Wind, LLC

Issue Date:
11/7/2018

Project:
16000947

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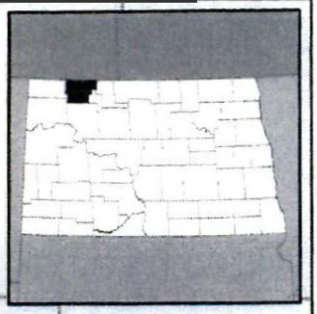
4.15.19
Attachment 2



Columbus

State Hwy 5

Noonan

Lignite

Divide County

Burke County

Divide County

Williams County

State Hwy 40

State Hwy 50

0 2 4 Miles

Burke County Wind Energy Center

State & US Highways

Cities

Counties

ATWELL

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community

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North Dakota State Public Service Commission

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Description		**Filed**	
On Behalf Of		**Docket #**	
Filed By		**Case #**	Select Value ▼ - 18 - 344
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		Clear	Search

Results

Total Records: 128 Case #: PU-18-344

Docket #	Description	On Behalf Of	Filed By	Filed	Pages
1	Application for Certificate of Site Compatibility	Burke Wind, LLC	Casey Furey, Crowley Fleck	9/14/2018	434
2	Map for publication	Burke Wind, LLC	Casey Furey, Crowley Fleck	9/14/2018	1
3	Wetland Determination & Delineation Report	Burke Wind, LLC	Casey Furey, Crowley Fleck	9/14/2018	90
4	Grouse Lek & Raptor Nest Survey Results	Burke Wind, LLC	Casey Furey, Crowley Fleck	9/14/2018	7
5	Bat Habitat Assessment	Burke Wind, LLC	Casey Furey, Crowley Fleck	9/14/2018	33
6	Shadow Flicker Analysis Report	Burke Wind, LLC	Casey Furey, Crowley Fleck	9/14/2018	21
7	Sound Level Assessment Report	Burke Wind, LLC	Casey Furey, Crowley Fleck	9/14/2018	28
8	Ex parte comments regarding Burke Wind Project	Coteau Preservation Alliance		8/14/2018	32
9	Whooping Crane Habitat Assessment	Burke Wind, LLC	Casey Furey, Crowley Fleck	9/19/2018	41
10	Receipt# 10,103 $100,000.00 Siting Application Fee - Burke Wind, LLC	NextEra Energy Resources, LLC		9/20/2018	1
11	Letter acknowledging siting Application	North Dakota Department of Trust Lands	Jodi Smith	10/17/2018	1
12	Request for Administrative Law Judge	Public Service Commission		11/7/2018	3
13	Commission Motion to retain counsel – Mitch Armstrong, Brian Schmidt, Sarah Wall	Public Service Commission		11/8/2018	1
14	Letter designating ALJ – Patrick Ward	Office of Administrative Hearings	Timothy Dawson, Director	11/9/2018	1
15	Letter enclosing Commission Motion	Public Service Commission		11/9/2018	2
16	Amended Application for a Certificate of Site Compatibility	Burke Wind, LLC	Casey Furey, Crowley Fleck	11/14/2018	323
17	Amended Shadow Flicker Analysis Report	Burke Wind, LLC	Casey Furey, Crowley Fleck	11/14/2018	20
18	Amended Sound Level Assessment Report	Burke Wind, LLC	Casey Furey, Crowley Fleck	11/14/2018	26
19	Notice of Appearance - Mitchell Armstrong, Brian Schmidt, Sarah Wall	Smith Porsborg Schweigert Armstrong Moldenhauer & Smith	Mitch Armstrong	11/15/2018	7
20	Site Plan Mapbook for Amended Application for a Certificate of Site Compatibility	Burke Wind, LLC	Casey Furey, Crowley Fleck	11/21/2018	15
21	Copy of Comments filed by U.S. Department of the Interior, Fish and Wildlife Service	Burke Wind, LLC		12/14/2018	19
22	Letter enclosing copy of Class II and Class III architectural survey concurrence letter	Burke Wind, LLC	Casey Furey, Crowley Fleck	1/15/2019	2
23	Commission Motion to consolidate cases for hearing, deem applications conditionally complete, and issue Notice	Public Service Commission		1/23/2019	1
24	Notice of Filings and Notice of Consolidated Hearing	Public Service Commission		1/23/2019	4
25	Letter changing ALJ designation - Timothy Dawson	Office of Administrative Hearings	Timothy Dawson, Director	1/25/2019	1
26	Return receipt - 7018-2290-0000-6607-8084	USPS		1/31/2019	1

27	Affidavit of Service, Cert. Mail - Notice	Public Service Commission		1/24/2019	5
28	Affidavit of Service, Reg. and E-mail - Notice	Public Service Commission		1/25/2019	9
29	Emails to-from NDNA re publication of Notice	North Dakota Newspaper Association		1/24/2019	2
30	Comments	North Dakota Department of Health	L. David Glatt, P.E., Chief	2/7/2019	3
31	Letter enclosing supporting documents to Amended Application for a Certificate of Site Compatibility	Burke Wind, LLC	Casey Furey, Crowley Fleck	2/6/2019	2
32	Addendum to the Amended Application and Final Site Plan Map Book	Burke Wind, LLC		2/6/2019	21
33	Addendum to the Sound Assessment Report	Burke Wind, LLC		2/6/2019	9
34	Addendum to the Shadow Flicker Analysis Report	Burke Wind, LLC		2/6/2019	9
35	Combined Shadow Flicker and Sound Level Modeling Results Chart	Burke Wind, LLC		2/6/2019	3
36	Grassland Analysis	Burke Wind, LLC		2/6/2019	10
37	Wetland Determination & Delineation Report	Burke Wind, LLC		2/6/2019	33
38	Wetland Impact Memo	Burke Wind, LLC		2/6/2019	30
39	Archaeological Survey Report Summary and Survey Map	Burke Wind, LLC		2/6/2019	7
40	Class II and III Architectural Survey Report Summary	Burke Wind, LLC		2/6/2019	4
41	Pre-Construction Eagle and Avian Use Study	Burke Wind, LLC		2/6/2019	69
42	Breeding Bird Assessment	Burke Wind, LLC		2/6/2019	36
43	Bat Habitat Assessment Addendum	Burke Wind, LLC		2/6/2019	1
44	Whooping Crane Habitat Assessment Addendum	Burke Wind, LLC		2/6/2019	1
45	Revised Grouse Lek & Raptor Nest Survey Results	Burke Wind, LLC		2/6/2019	8
46	Dakota Skipper Assessment Report	Burke Wind, LLC	Casey Furey, Crowley Fleck	2/6/2019	64
47	Letter re Court Reporter	Public Service Commission		2/19/2019	1
48	Letter indicating Court Reporter to attend hearing	Burke Wind, LLC	Casey Furey, Crowley Fleck	2/20/2019	1
49	Comments	North Dakota State Water Commission	Jared Huibregtse	2/26/2019	1
50	Letter enclosing supporting documents	Burke Wind, LLC	Casey Furey, Crowley Fleck	3/1/2019	1
51	Copy of SHPO concurrence letter - no significant sites affected	Burke Wind, LLC	Casey Furey, Crowley Fleck	3/1/2019	1
52	Copy of Certification Relating to Order Provisions	Burke Wind, LLC	Casey Furey, Crowley Fleck	3/1/2019	10
53	Invoice #8716 $1,251.12	North Dakota Newspaper Association		3/4/2019	2
54	Affidavit of Publication - verified	North Dakota Newspaper Association		3/4/2019	1
55	Curriculum Vitae of Richard M. Lampeter	Burke Wind, LLC	Casey Furey, Crowley Fleck	3/5/2019	15
56	Legislator correspondence	North Dakota House of Representatives	The Honorable Donald Longmuir	3/6/2019	1
57	Burke Wind, LLC exhibit list	Burke Wind, LLC	Casey Furey, Crowley Fleck	3/6/2019	6
58	Comments	North Dakota Game and Fish	Greg Link, Chief	3/7/2019	2
59	Legislator correspondence	North Dakota Senate	The Honorable David Rust	3/7/2019	1
60	Comments	United States Department of the Interior, Fish and Wildlife Service	Scott Larson, Field Supervisor	3/7/2019	28
61	Letter enclosing Curriculum Vitae and prefiled Direct Testimony of Davide Hessler	Public Service Commission	Brian Schmidt, SAAG	3/7/2019	14
62	Electronic recording of 8 March 2019 formal hearing	Public Service Commission		3/11/2019	1
63	Commission Motion to execute contract for consulting services	Public Service Commission		3/13/2019	1
64	Executed Contract	Public Service Commission		3/13/2019	11
65	Letter enclosing hearing attendance list, witness list, Exhibits, and Exhibit List	Timothy Dawson, ALJ - Office of Administrative Hearings		3/19/2019	1
66	Hearing Attendance Sign-up Sheet	Public Service Commission		3/8/2019	5
67	Witness List	Timothy Dawson, ALJ - Office of Administrative Hearings		3/8/2019	2
68	Exhibit 4 - Amended Certificate of Site Compatibility Application	Burke Wind, LLC		3/8/2019	319
69	Exhibit 5 - Addendum to Exhibit 4 and Exhibit 2	Burke Wind, LLC		3/8/2019	21
70	Exhibit 6 - Wind Project Certification	Burke Wind, LLC		3/8/2019	10
71	Exhibit 7 - Grassland Analysis	Burke Wind, LLC		3/8/2019	10
72	Exhibit 8 - Flicker and Sound Level Modeling Results	Burke Wind, LLC		3/8/2019	3
73	Exhibit 9 - Addendum to Sound Assessment Report	Burke Wind, LLC		3/8/2019	9
74	Exhibit 10 - Amended Sound Assessment Report	Burke Wind, LLC		3/8/2019	26
75	Exhibit 11 - Addendum to Shadow Flicker Report	Burke Wind, LLC		3/8/2019	9

76	Exhibit 12 - Amended Shadow Flicker Report	Burke Wind, LLC		3/8/2019	9
77	Exhibit 13 - Richard M. Lampeter Curriculum Vitae	Burke Wind, LLC		3/8/2019	14
78	Exhibit 14 - Wind Architectural Survey Report	Burke Wind, LLC		3/8/2019	4
79	Exhibit 15 - Wind Architectural SHPO Concurrence	Burke Wind, LLC		3/8/2019	1
80	Exhibit 16 - Wind Archaeological Survey Report	Burke Wind, LLC		3/8/2019	7
81	Exhibit 17 - Wind Archeological SHPO Concurrence	Burke Wind, LLC		3/8/2019	1
82	Exhibit 21 - ND Department of Health Comments	Burke Wind, LLC		3/8/2019	3
83	Exhibit 22 - ND Water Commission Comments	Burke Wind, LLC		3/8/2019	1
84	Exhibit 23 - US Fish and Wildlife Service Correspondence Comments	Burke Wind, LLC		3/8/2019	19
85	Exhibit 24 - ND Trust Lands Comments	Burke Wind, LLC		3/8/2019	1
86	Exhibit 25 - Revised Grouse Lek and Raptor Nest Survey Results	Burke Wind, LLC		3/8/2019	8
87	Exhibit 26 - Bat Habitat Addendum and Bat Habitat Assessment	Burke Wind, LLC		3/8/2019	34
88	Exhibit 27 - Whooping Crain Addendum and Whooping Crane Habitat Assessment	Burke Wind, LLC		3/8/2019	41
89	Exhibit 28 - Dakota Skipper Habitat Assessment Report	Burke Wind, LLC		3/8/2019	63
90	Exhibit 29 - Breeding Bird Assessment	Burke Wind, LLC		3/8/2019	36
91	Exhibit 30 - Pre-Construction Eagle and Avian Use Study	Burke Wind, LLC		3/8/2019	69
92	Exhibit 31 - Wetland Impact Memorandum	Burke Wind, LLC		3/8/2019	30
93	Exhibit 32 - Addendum to Wetland Determination and Delineation Report	Burke Wind, LLC		3/8/2019	33
94	Exhibit 33 - Wetland Determination and Delineation Report	Burke Wind, LLC		3/8/2019	90
95	Exhibit 35 - Burke County Wind Project Hearing Display Map	Burke Wind, LLC		3/8/2019	1
96	Exhibit 37 - Burke County Wind Energy Center Project Boundary Comparison Map	Burke Wind, LLC		3/8/2019	1
97	Exhibit 38 - Burke County CUP	Burke Wind, LLC		3/8/2019	5
98	Exhibit 39 - Burke County Building Permit	Burke Wind, LLC		3/8/2019	2
99	Exhibit 40 - Montrail County CUP	Burke Wind, LLC		3/8/2019	5
100	Exhibit 41 - Representative Donald W. Longmuir Correspondence	Burke Wind, LLC		3/8/2019	1

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GOVERNOR, Doug Burgum
DIRECTOR, Terry Steinwand
DEPUTY, Scott A. Peterson

"VARIETY IN HUNTING AND FISHING"

NORTH DAKOTA GAME AND FISH DEPARTMENT
100 NORTH BISMARCK EXPRESSWAY BISMARCK, NORTH DAKOTA 58501-5095 PHONE 701-328-6300 FAX 701-328-6352

March 7, 2019

ND Public Service Commission
600 E. Boulevard, Dept. 408
Bismarck, ND 58505-0480

Subject: Burke County Wind Energy Center and Transmission Line Project
Emmons and Logan Counties, ND

Mr. Kahl,

The North Dakota Game and Fish Department first learned of the proposed Burke County Wind Energy Center at a joint agency meeting with NextEra and the United Stated Fish and Wildlife Service (Service) in September of 2016. During this first consultation, Department staff voiced considerable concern and indicated that the applicant *"could not have picked a worse spot in the state"* with regards to potential negative impacts to prairie and wetland wildlife species. Despite hearing these concerns, NextEra continued to move forward with the project, signing a Power Purchase Award (PPA) only one month later. It should be noted that this PPA was signed prior to any wildlife/habitat studies being done.

In a February 15, 2019 letter sent to the Department's Director, NextEra states "Burke Wind initially sited the project to adhere to the voluntary U.S. Fish and Wildlife Service (USFWS) Land-Based Wind Energy Guidelines (WEG) that address potential impacts to native and rare, declining, or sensitive wildlife species". As it reads, it seems NextEra is implying that this location was selected based on suggestions by the Service, which is not consistent with our understanding of the Service's comments. In early planning meetings, both the Department and the Service were transparent about the poor siting of this project. The Service has gone as far as recommending NextEra relocate the project entirely in a letter dated November 2018.

Also included in NextEra's aforementioned letter was a voluntary offset proposal. The offset package proposed is to address the residual direct impacts remaining after all other avoidance, minimization, and mitigation measures have been taken. Although NextEra has made significant efforts to 'reduce' their environmental footprint, we were disappointed with their misuse and misrepresentation of the voluntary WEG, as well as their subsequent decision to push forward with a project that has raised explicit concerns from both agencies. The grassland-wetland mosaic of this area is extremely valuable for a number of Species of Conservation Concern, such as

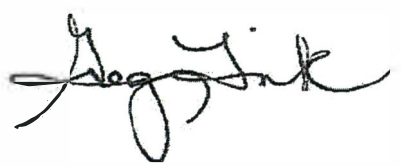
Sprague's pipit, lesser scaup, northern pintail, and whooping crane. Despite NextEra's efforts to minimize impacts, their initial site selection and succeeding resolve to proceed in this extremely resource-rich landscape shows poor resource regard and should not be rewarded.

On February 13th, the Department received a Whooping Crane Habitat Assessment Addendum, a Bat Habitat Assessment Addendum, and a Revised Grouse Lek and Raptor Nest Survey, all of which are dated November 27, 2018. The same day, we also received an Eagle and Avian Use Study dated January 31, 2018. On a call arranged just last week, NextEra provided the Department and the Service with a preliminary overview of how their accounting of project impacts and offsets was derived; however, we are still waiting for a detailed write-up of the proposed voluntary offset to review. With a hearing date of March 8th, we do not have the staff resources to analyze and digest all of these documents in such a short timeframe, especially for a project that has been highly controversial from the beginning.

As the state's lead wildlife agency, we recognize the important economic value provided to our state and its local communities from both wind energy development and our naturally-occurring resources. We acknowledge the key role wind energy has in the 'all of the above' strategy for energy in North Dakota and understand the difficult challenges of managing the risk to public wildlife resources and their habitats while advancing renewable energy development. Nevertheless, this state is blessed with abundant opportunities to develop and site wind projects to best balance these two important resources. As we have relayed from the start, the Department believes this project was ill-planned in its site selection relative to natural resources and, consequently, will have substantial impacts to native wildlife and their habitats.

Having just received NextEra's preliminary accounting of their perceived impacts and proposed offsets this week, we cannot make a full assessment of the project prior to the hearing. To fully analyze and evaluate the severity of these impacts and to determine if and how the proposed voluntary offset package will address them, the Department requests 30 days to review all the late-received reports and the offset write-up.

Sincerely,



Greg Link
Chief, Conservation and Communications Division

Cc: Kimberly Wells, NextEra Energy
Scott Larson, U.S. Fish and Wildlife Service

Mueller, Elisha K.

HB 1383
4.15.19
Attachment 2

From: Wells, Kimberly <Kimberly.Wells@nexteraenergy.com>
Sent: Tuesday, March 5, 2019 7:48 AM
To: Dyke, Steve R.
Cc: Link, Greg W.; Johnson, Sandra K.; Mueller, Elisha K.; Larson, Scott; Gates, Natalie; HART, DARYL; Cameron, Clay; Clayton Derby; Meyers, Lindsey; Wells, Kimberly
Subject: Burke Offset Plan Clarifications
Attachments: Burke Offset Clarifications 03052019.pdf

Hi Steve,

I am attaching a methods description of our proposed offsets for our Burke project that the NDGFD team requested during our call last week on 2/26 along with some clarifications we researched regarding the valuation method.

Does the NDGFD team have time to discuss on Thursday?

I am copying the wider NDGFD as requested since I believe Steve may be tied up this week or out of the office.

Kim

Kimberly Wells, Ph.D.
Manager, Environmental Services
Mid Continent Region
NEXTera Energy Resources, LLC
708 Main Street, 10th Floor (mail c/o WeWork)
Houston, TX 77002
713.951.5372 (office)
832.538.7935 (mobile)
Kimberly.Wells@NEE.com

** NOTE new physical mailing address

#1
4-17-19
HB1383

19.0188.12015

Sixty-sixth
Legislative Assembly
of North Dakota

SECOND ENGROSSMENT

REENGROSSED HOUSE BILL NO. 1383

Introduced by

Representatives Brandenburg, Boe, Headland, Howe, D. Johnson, Schmidt

Senators Dotzenrod, Erbele, Luick, J. Roers, Rust, Wanzek

A BILL for an Act to create and enact a new section to chapter 4.1-01~~,~~ and a new section to chapter 49-22~~, and a new section to chapter 49-22.1~~ of the North Dakota Century Code, relating to the creation of an environmental impact mitigation fund and to mitigating direct environmental impacts; to amend and reenact subsection 1 of section 4.1-01-18, sections 49-22-05.1~~,~~ and 49-22-09, ~~49-22.1-03, and 49-22.1-09~~and subsection 4 of section 49-22-16 of the North Dakota Century Code, relating to the federal environmental law impact review committee, exclusion and avoidance areas ~~and~~, the factors considered by the public service commission when evaluating and designating sites, corridors, and routes, and state agency rules; to provide for a report to the ~~budget section~~legislative management; to provide an appropriation; and to provide a continuing appropriation.

BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF NORTH DAKOTA:

SECTION 1. AMENDMENT. Subsection 1 of section 4.1-01-18 of the North Dakota Century Code is amended and reenacted as follows:

1. The federal environmental law impact review committee consists of:
   a. The commissioner, who shall serve as the chairman;
   b. The governor or the governor's designee;
   c. The majority leader of the house of representatives, or the leader's designee;
   d. The majority leader of the senate, or the leader's designee;
   e. One member of the legislative assembly from the minority party, selected by the chairman of the legislative management;
   f. ~~One individual appointed by the lignite energy council;~~
   ~~g.~~ One individual appointed by the North Dakota corn growers association;
   ~~h.~~g. One individual appointed by the North Dakota grain growers association;
   ~~i. One individual appointed by the North Dakota petroleum council;~~

~~j.~~h. One individual appointed by the North Dakota soybean growers association; ~~and~~

~~k.~~i. One individual appointed by the North Dakota stockmen's association;

~~l.~~j. One individual appointed by the North Dakota farm bureau;

~~m.~~k. One individual appointed by the North Dakota farmers union;

~~n.~~l. The chairman of the public service commission or the chairman's designee;

m. The state engineer or the state engineer's designee;

n. The director of the game and fish department, or the director's designee;

o. The director of the department of transportation, or the director's designee;

p. The director of the department of environmental quality, or the director's designee;

q. One representative of an investor-owned utility companies; ~~and~~

~~o.~~r. One representative from the North Dakota association of rural electric cooperatives; and

s. Two individuals from the energy community appointed by the commissioner.

SECTION 2. A new section to chapter 4.1-01 of the North Dakota Century Code is created and enacted as follows:

Environmental impact mitigation fund - Report to ~~budget section~~legislative management - Continuing appropriation.

1. ~~The moneys accumulated in the environmental impact mitigation fund must be allocated as provided by law and as appropriated by the legislative assembly~~There is created in the state treasury the environmental impact mitigation fund. The fund consists of all moneys deposited in the fund under section 5 of this Act. All moneys in the fund are appropriated to the commissioner on a continuing basis for distribution by the agriculture commissioner~~:~~

~~a. To political subdivisions and state agencies to offset impacts of energy development to agricultural land;~~

~~b. To~~ to landowners for the mitigation of agricultural land impacted by ~~energy~~ development~~; and~~

~~c. To landowners of agricultural land who are subject to excessive mitigation of wetlands~~ as set forth under subsection 2.

2. Funding may be used only for:

a. Contracting for consultation with environmental scientists~~, wildlife biologists, biologists, soil scientists, range scientists, engineers, economists, or scientists in any other field determined to be relevant for services including the evaluation, assessment, and analysis of the physical composition and potential chemical properties of land determined to be impacted by energy development or land to be considered for mitigation;~~ or engineers for relevant services to implement mitigation required from the impact of development; and

b. Reclamation~~, restoration,~~ or mitigation of ~~land, water resources, or wildlife habitats adversely impacted directly by energy~~adverse impacts from development~~; and~~

~~c. Offsetting or defraying costs of landowner mitigation in qualifying circumstances as determined by the advisory board~~.

3. The commissioner is not subject to chapter 54-44.4 when contracting for services under this chapter.

4. The federal environmental law impact review committee shall establish criteria for disbursement of environmental impact funds.

5. The commissioner shall make disbursements based upon the determinations made by the federal environmental law impact review committee.

6. For purposes of this section, the federal environmental law impact review committee shall hold ~~at least one regular meeting each year and additional~~ meetings as the chairman determines necessary at a time and place set by the chairman. Upon written request of any four members, the presiding officer shall call a special meeting of the committee.

7. The federal environmental law impact review committee shall make determinations for the disbursement of grants in accordance with subsection 2 and provide those determinations to the commissioner.

8. The federal environmental law impact review committee shall provide a biennial report to the ~~budget section of the~~ legislative management.

9. ~~All moneys in the environmental impact mitigation fund are appropriated to the commissioner on a continuing basis for the purposes set forth under subsection 2~~For

purposes of this section, the environmental impact mitigation fund is not subject to subsection 2 of section 4.1-01-18.

SECTION 3. AMENDMENT. Section 49-22-05.1 of the North Dakota Century Code is amended and reenacted as follows:

49-22-05.1. Exclusion and avoidance areas - Criteria.

1. The commission shall develop criteria to be used in identifying exclusion and avoidance areas and to guide the site, corridor, and route suitability evaluation and designation process. The criteria also may include an identification of impacts and policies or practices which may be considered in the evaluation and designation process.
2. The commission may not identify prime farmland, unique farmland, or irrigated land as exclusion or avoidance areas when evaluating and designating geographical areas for site, corridor, or route suitability.
3. Except for electric transmission lines in existence before July 1, 1983, areas within five hundred feet [152.4 meters] of an inhabited rural residence must be designated avoidance areas. This criterion does not apply to a water pipeline. The five hundred foot [152.4 meter] avoidance area criteria for an inhabited rural residence may be waived by the owner of the inhabited rural residence in writing.

~~3.~~4. Areas less than one and one-tenth times the height of the turbine from the property line of a nonparticipating landowner and less than three times the height of the turbine or more from an inhabited rural residence of a nonparticipating landowner, must be excluded in the consideration of a site for a wind energy conversion area, unless a variance is granted. The commission may grant a variance if an authorized representative or agent of the permittee, the nonparticipating landowner, and affected parties with associated wind rights file a written agreement expressing the support of all parties for a variance to reduce the setback requirement in this subsection. A nonparticipating landowner is a landowner that has not signed a wind option or an easement agreement with the permittee of the wind energy conversion facility as defined in chapter 17-04. A local zoning authority may require setback distances greater than those required under this subsection. For purposes of this subsection,

"height of the turbine" means the distance from the base of the wind turbine to the turbine blade tip when it is in its highest position.

SECTION 4. AMENDMENT. Section 49-22-09 of the North Dakota Century Code is amended and reenacted as follows:

49-22-09. Factors to be considered in evaluating applications and designation of sites, corridors, and routes.

1. The commission shall be guided by, but is not limited to, the following considerations, where applicable, to

~~1.~~ ~~To~~ aid ~~in~~ the evaluation and designation of sites, corridors, and routes~~, the commission shall consider~~:

~~1.~~ a. Available research and investigations relating to the effects of the location, construction, and operation of the proposed facility on public health and welfare, natural resources, and the environment.

~~2.~~ b. The effects of new electric energy conversion and electric transmission technologies and systems designed to minimize adverse environmental effects.

~~3.~~ c. The potential for beneficial uses of waste energy from a proposed electric energy conversion facility.

~~4.~~ d. Adverse direct and indirect environmental effects that cannot be avoided should the proposed site or route be designated.

~~5.~~ e. Alternatives to the proposed site, corridor, or route which are developed during the hearing process and which minimize adverse effects.

~~6.~~ f. Irreversible and irretrievable commitments of natural resources should the proposed site, corridor, or route be designated.

~~7.~~ g. The direct and indirect economic impacts of the proposed facility.

~~8.~~ h. Existing plans of the state, local government, and private entities for other developments at or in the vicinity of the proposed site, corridor, or route.

~~9.~~ i. The effect of the proposed site or route on existing scenic areas, historic sites and structures, and paleontological or archaeological sites.

~~10.~~ j. The effect of the proposed site or route on areas ~~which are~~ unique because of biological wealth or because ~~they~~the areas are habitats for rare and endangered species.

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~~11.~~ k. Problems raised by federal agencies, other state agencies, and local entities.

2. ~~In the evaluation and designation of sites, corridors, and routes, the commission may not:~~

~~a. Require payment for mitigation of any assessed adverse indirect environmental effects or impacts; or~~

~~b. Require payment to a third-party nongovernmental organization for any assessed adverse direct or indirect environmental effects or impacts.~~The commission may not condition the issuance of a certificate or permit on the applicant providing a mitigation payment assessed or requested by another state agency or entity to offset a negative impact on wildlife habitat.

SECTION 5. A new section to chapter 49-22 of the North Dakota Century Code is created and enacted as follows:

Mitigating direct environmental impacts.

1. ~~If an applicant elects to provide~~An applicant may elect to provide payment to mitigate any assessed adverse direct environmental ~~impact~~impacts of a proposed site, corridor, route, or facility~~, the applicant shall make the payment to the agriculture commissioner~~. The applicant may elect to provide the payment to the agriculture commissioner.

2. ~~Subject to subsection 3, the~~The agriculture commissioner shall deposit into the environmental impact mitigation fund any moneys paid to mitigate the adverse direct environmental impacts of a proposed site, corridor, route, or facility.

~~3. At the applicant's request, the agriculture commissioner may provide moneys directly to an organization approved by the federal environmental law impact review committee.~~

~~**SECTION 6. AMENDMENT.** Section 49-22.1-03 of the North Dakota Century Code is amended and reenacted as follows:~~

~~**49-22.1-03. Exclusion and avoidance areas - Criteria.**~~

~~1. The commission shall develop criteria to be used in identifying exclusion and avoidance areas and to guide the site, corridor, and route suitability evaluation and designation process.~~

2. The commission may not identify prime farmland, unique farmland, or irrigated land as exclusion or avoidance areas when evaluating and designating geographical areas for site, corridor, or route suitability.

3. Except for oil and gas transmission lines in existence before July 1, 1983, areas within five hundred feet [152.4 meters] of an inhabited rural residence must be designated avoidance areas.

a. This criterion does not apply to a water pipeline.

b. The five hundred foot [152.4 meter] avoidance area criteria for an inhabited rural residence may be waived by the owner of the inhabited rural residence in writing.

c. The criteria also may include an identification of impacts and policies or practices which may be considered in the evaluation and designation process.

SECTION 7. AMENDMENT. Section 49-22.1-09 of the North Dakota Century Code is amended and reenacted as follows:

49-22.1-09. Factors to be considered in evaluating applications and designation of sites, corridors, and routes.

The commission is guided by, but is not limited to, the following considerations, when applicable, to

1. To aid in the evaluation and designation of sites, corridors, and routes, the commission shall consider:

1. a. Available research and investigations relating to the effects of the location, construction, and operation of the proposed facility on public health and welfare, natural resources, and the environment.

2. b. The effects of new gas or liquid energy conversion and gas or liquid transmission technologies and systems designed to minimize adverse environmental effects.

3. c. The potential for beneficial uses of waste energy from a proposed gas or liquid energy conversion facility.

4. d. Adverse direct and indirect environmental effects that cannot be avoided should the proposed site or route be designated.

5. e. Alternatives to the proposed site, corridor, or route that are developed during the hearing process and which minimize adverse effects.

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~~6. f. Irreversible and irretrievable commitments of natural resources should the proposed site, corridor, or route be designated.~~

~~7. g. The direct and indirect economic impacts of the proposed facility.~~

~~8. h. Existing plans of the state, local government, and private entities for other developments at or in the vicinity of the proposed site, corridor, or route.~~

~~9. i. The effect of the proposed site or route on existing scenic areas, historic sites and structures, and paleontological or archaeological sites.~~

~~10. j. The effect of the proposed site or route on areas that are unique because of biological wealth or because the site or route is a habitat for rare and endangered species.~~

~~11. k. Problems raised by federal agencies, other state agencies, and local entities.~~

~~2. In the evaluation and designation of sites, corridors, and routes, the commission may not:~~

~~a. Require payment for mitigation of any assessed adverse indirect environmental effects or impacts; or~~

~~b. Require payment to a third-party nongovernmental organization for any assessed adverse direct or indirect environmental effects or impacts.~~

~~**SECTION 8.** A new section to chapter 49-22.1 of the North Dakota Century Code is created and enacted as follows:~~

~~**Mitigating direct environmental impacts.**~~

~~1. If an applicant elects to provide payment to mitigate any assessed adverse direct environmental impact of a proposed site, corridor, route, or facility, the applicant shall make the payment to the agriculture commissioner.~~

~~2. Subject to subsection 3, the agriculture commissioner shall deposit into the environmental impact mitigation fund any moneys paid to mitigate the adverse direct environmental impacts of a proposed site, corridor, route, or facility.~~

~~3. At the applicant's request, the agriculture commissioner may provide moneys directly to an organization approved by the federal environmental law impact review committee.~~

SECTION 6. AMENDMENT. Subsection 4 of section 49-22-16 of the North Dakota Century Code is amended and reenacted as follows:

4. ~~No~~A site or route ~~shall~~may not be designated which violates the rules of any state agency. A state agency with jurisdiction over any aspect of a proposed facility shall present the position of the agency at least thirty days before the public hearing on an application for a certificate, a permit, or a waiver, which position ~~shall~~ clearly must state whether the site, corridor, or route being considered for designation will be in compliance with ~~such~~the agency's rules. For purposes of this chapter it ~~shall be~~is presumed ~~that~~ a proposed facility will be in compliance with a state agency's rules if ~~such~~the agency fails to present its position on the proposed site, corridor, or route at least thirty days before the appropriate public hearing.

SECTION 7. APPROPRIATION. There is appropriated out of any moneys in the environmental impact mitigation fund in the state treasury, not otherwise appropriated, the sum of $5,000,000, or so much of the sum as may be necessary, to the agriculture commissioner for the purpose of providing grants to political subdivisions for the mitigation of environmental impacts, for the biennium beginning July 1, 2019, and ending June 30, 2021.