

Public Hearing
3/8/2019

Page 1

1
2
3
4
5
6
7
8
9
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11
12
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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

T R A N S C R I P T
OF
P R O C E E D I N G S
Witness Testimony Part 2

March 8, 2019
1:30 p.m.

LOCATION: Memorial Hall
100 Main Street Northwest
Bowbells, North Dakota 58721

REPORTER: KAYLA A. RICHMOND

Public Hearing
3/8/2019

Page 2

1
2
3
4
5
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A P P E A R A N C E S

ADMINISTRATIVE LAW JUDGE - TIMOTHY DAWSON

PUBLIC SERVICE COMMISSION:

Commissioner Julie Fedorchak

Commissioner Brian Kroshus

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Public Hearing
3/8/2019

Page 3

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A P P E A R A N C E S (CONT'D)

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Public Hearing
3/8/2019

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17
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19
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21
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23
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25

I N D E X

WITNESS	PAGE
Kimberly Wells	
Cross exam - by Mr. Schmidt	5
Clayton Derby	
Direct exam - by Ms. Furey	80
Cross exam - by Mr. Schmidt	100

Public Hearing
3/8/2019

Page 5

1 MR. DAWSON: We are back on the record.
2 Ms. Wells is providing testimony and we're at the point
3 where she is subject to cross examination by Mr.
4 Schmidt. Mr. Schmidt?

5 BY MR. SCHMIDT CROSS EXAMINATION

6 Q. Thank you, Your Honor. Good afternoon, Ms.
7 Wells.

8 **A. Good afternoon.**

9 Q. During your direct testimony, you talked a lot
10 about native prairie and how this project area
11 encompasses some native prairie land; is that correct?

12 **A. That's correct.**

13 Q. You also described native prairie land as
14 essentially (inaudible) land?

15 **A. Correct.**

16 Q. Fair to say?

17 **A. I would say that the focus is more on the**
18 **mechanical tillings common with turning over a cop so**
19 **you could have a shovel in one single location and that**
20 **wouldn't necessarily penetrate the sod, so I think**
21 **working in a similar line, just more mechanized.**

22 Q. Are native prairie and roaming grasslands novice
23 with each other?

24 **A. Yes.**

25 Q. Can we agree that native prairie is a habitat

Public Hearing
3/8/2019

Page 6

1 for the Dakota skipper?

2 **A. That is certainly one of the habitat types for**
3 **them, yes.**

4 Q. And the Dakota skipper is a federally threatened
5 butterfly; is that correct?

6 **A. Correct.**

7 Q. What does it mean to be federally threatened?

8 **A. Federally threatened means you're on the Federal**
9 **Endangered Species Act and so you're a listed species,**
10 **which means if you want to impact that species, there**
11 **are a couple of ways you can go about that. There's a**
12 **public and a private permitting process. The public**
13 **process that would be a NEPA trigger. It doesn't apply**
14 **to us. We don't have any NEPA triggers and we're also**
15 **not having any impact. So there would be no need to go**
16 **down that route.**

17 Q. Now, it's NextEra's position that native prairie
18 area will be avoided by this project where possible,
19 correct?

20 **A. Correct.**

21 Q. You're aware of North Dakota Game and Fish, they
22 have expressed concerns with the disturbance of native
23 prairie lands to you?

24 **A. Yes.**

25 Q. Do you agree with North Dakota Game and Fish's

Public Hearing
3/8/2019

Page 7

1 contention that native prairie is vital to many
2 declining bird or pollinated species?

3 **A. Yes. That's an important habitat to many animals**
4 **and pollinated species.**

5 Q. Now, I want you to turn to exhibit number four
6 which is the amended application and if you look at page
7 80, halfway down the second paragraph, it states that
8 approximately 3.0 acres of native prairie will be
9 permanently impacted by the project.

10 **A. I'm sorry, could you repeat that?**

11 Q. Sure. So I'm on page 80 of exhibit number four,
12 the second paragraph about halfway down the paragraph it
13 states, based on the current design, approximately 3.0
14 acres of native prairie will be permanently impacted by
15 the project. Can we agree that's what it says?

16 **A. Could you repeat that? I'm in the right**
17 **paragraph but I just want to check what you said.**

18 Q. It's about halfway down. It says based on the
19 current design, approximately 3.0 acres of prairie will
20 be permanently impacted by the project?

21 **A. Yes, I see that.**

22 Q. Can I have you turn to exhibit number seven and
23 page three. Looking at table two of page three of
24 exhibit number seven three.

25 **A. Okay. So I am looking at page three, table two.**

Public Hearing
3/8/2019

Page 8

1 Q. And in this table it says unbroken grassland and
2 then we move over to the third column, acres permanently
3 impacted by project, 5.8. So why did the amount of
4 native prairie disturbance double, almost double,
5 between November of 2018 when the application was
6 submitted and January 31, 2019?

7 A. Engineering continues to refine the design and
8 often we're working through road and collection changes.
9 So that is the most likely source of that tiny change. I
10 would say that although it is a doubling, I think you
11 would have to characterize that in context of the whole
12 project or that six percent is still a pretty small, or
13 excuse me, six acres is still a pretty small percentage
14 of the overall project.

15 Q. So I guess I'm not exactly following how we
16 ended up with twice as much native prairie disturbance
17 in that short period of time. Was it a calculation error
18 or did something subsequently change?

19 A. So something changed. It wasn't substantive. As
20 Mr. Hart testified, there have been minor changes to
21 road and collections since the amended 200 megawatt
22 application was filed in November versus the timing of
23 these exhibits, which were the part of the 30 day pre
24 hearing filed in February, I believe, so that is the
25 difference in the timeline. It reflects the advancement

1 **of design.**

2 Q. So it is 5.8 acres?

3 **A. That is accurate.**

4 Q. Okay. If I could actually just have you turn
5 back one page on exhibit number seven to page two. I'm
6 looking at table one which is the land use
7 classification for turbine and if we look at the third
8 column where it says unbroken grassland turbine Id, we
9 see these turbine 54, 52, 55, 65, 67 and 71. You see
10 where it says that?

11 **A. I do.**

12 Q. And do we agree that that indicates there are
13 seven planned turbine locations that are classified as
14 unbroken grassland?

15 **A. We do agree.**

16 Q. Now, I want you to look at exhibit number 46.

17 **A. I'm looking at it.**

18 Q. Now, I believe on your direct testimony you
19 indicated this was a letter that you had drafted; is
20 that correct?

21 **A. That is correct. Our team drafted it.**

22 Q. Okay. Have you look at the bottom paragraph on
23 the first page of exhibit number 46?

24 **A. Yes.**

25 Q. And I'm looking at the third line where it says

Public Hearing
3/8/2019

Page 10

1 those efforts have resulted in only five of the 76
2 planned turbines being located on unbroken grassland.
3 How do you pair your statement in exhibit number 46 to
4 what's reported on exhibit number 7 page two?

5 **A. That exhibit shows seven turbines total. The**
6 **exhibit 46 specifies there are also a total of seven**
7 **turbines. Five of those are on unbroken grassland and**
8 **additional total two are on hay land also considered**
9 **unbroken. So that would be the five plus two is the**
10 **seven.**

11 Q. So there's a typo in the letter, is that what
12 you're saying?

13 **A. No, the letter describes the total of seven. So**
14 **it says there are five of the planned turbines located**
15 **on unbroken grasslands and additional two that are**
16 **located on hay lands also considered -- oh, I see what**
17 **you're asking. Yes. I'm sorry, that is a typo. That**
18 **should say unbroken. My apologies.**

19 Q. Okay. So that's where the seven comes from. It's
20 five --

21 **A. That's correct.**

22 Q. Five on unbroken grassland and two on hay land?

23 **A. My apologies. You're correct. That should say**
24 **unbroken. That is a typo.**

25 Q. Can I have you turn to figure one, exhibit

Public Hearing
3/8/2019

Page 11

1 number seven, which is the project area map and it has
2 the broken grassland, unbroken grassland and crop land
3 in the project area?

4 **A. I think we're looking at the same figure.**

5 Q. Okay. The figure you're looking at, does it have
6 yellow and then a dark green, light green and then white
7 within the project area?

8 **A. Yes.**

9 Q. What's the white? I don't see it in the key.

10 **A. The white areas are neither classified as**
11 **cropland or broken grassland. Those are developed areas**
12 **or other lands or classes. The purpose of this exhibit**
13 **was to show crop land and grassland so those were the**
14 **focuses of the plain cover classes.**

15 Q. Well, with the exception of turbine number 52,
16 do we agree that the remaining turbines are located on
17 unbroken grasslands are all located on the east side of
18 the project?

19 **A. I would need a minute to look at that. I can**
20 **come back to that later though for you.**

21 Q. Sure. Well, let's focus on turbines number 54,
22 55, 56 and 57 towards the north part of the east side
23 project.

24 **A. I see those.**

25 Q. Okay. It's figure one of exhibit seven. So

Public Hearing
3/8/2019

Page 12

1 getting back to the question, looking at turbines 54,
2 55, 56 and 57, now do we agree that those are all
3 located on unbroken native prairie land?

4 **A. That is correct as indicated by the dark green**
5 **on the map.**

6 Q. Now, do we agree that there's cropland straight
7 to the south of those four turbines?

8 **A. That does appear to be correct. Turbine 53 is**
9 **shown in yellow as cropland as is 59, 60, 61.**

10 Q. Now, if we look at turbine number 52 which
11 appears to be right in the middle of the project area,
12 do you use see where it's at?

13 **A. I do.**

14 Q. Do we agree that there's crop land and
15 undisclosed land right to the west of that turbine
16 location?

17 **A. That is correct. It looks like there is some**
18 **white space between the two, but the parcel immediately**
19 **to the west does have yellow, which indicates cropland,**
20 **you're correct, yes.**

21 Q. And then if we go look at turbine number 65
22 which is in the southeast little, little jot in the
23 southeast corner of the project?

24 **A. Yes. I see.**

25 Q. Okay. Do we agree that there is unbroken

Public Hearing
3/8/2019

Page 13

1 grassland directly to the east of turbine number 65?

2 **A. We do. Looks like there's some white space in**
3 **between there but, in general, yes I believe that's**
4 **accurate.**

5 Q. And if we look at turbine number 71, which is on
6 the east side of the project and kind of in the middle
7 of the project area, do you see that?

8 **A. I do.**

9 Q. Do we agree that it has unbroken grassland that
10 appears to be on the west?

11 **A. I'm sorry you were asking me about 71?**

12 Q. 71.

13 **A. Yes, that is correct.**

14 Q. Okay. Now, do we agree that the transmission
15 line will also have an impact on native prairie as well?

16 **A. I would have to look at a few things to examine**
17 **that. That isn't -- I can answer that in a few ways.**
18 **First of all, (inaudible) So that was also for skippers**
19 **but also for other non-listed wildlife.**

20 Q. Well, we'll go -- we'll go through a map and you
21 can maybe get some stuff clarified as we go.

22 **A. Sure.**

23 Q. I guess, just to kind of paint a little picture
24 and I know Mr. Hart testified about this earlier, but
25 the transmission line is held up by single poles,

1 correct?

2 **A. Poles or structures, yes.**

3 Q. And those poles are not spaced equally distant
4 from each other all the way throughout the transmission
5 line. Is that correct?

6 **A. Correct.**

7 Q. In fact, they can be placed anywhere from 400
8 feet and 1200 feet apart pursuant to the application.
9 You agree with that?

10 **A. Yes. That sounds generally correct.**

11 Q. So do we agree there can be some flexibility
12 where these poles can be located along the transmission
13 line?

14 **A. Yes, absolutely. Pole setting is a key part in
15 our setting process.**

16 Q. Can I have you turn to exhibit number one, which
17 is the consolidated application and then figure six.

18 **A. What section are you in or what tab are you in?**

19 Q. Okay. So exhibit number one is the map that
20 shows the -- wait a minute, I have figure six written
21 done here but that might not be --

22 **A. I see a figure of six that has sharp-tailed
23 grouse habitat and native prairie, is that perhaps --**

24 Q. Yeah, I believe it is. I'm wondering what
25 happened to my figure six. Something must have fallen

1 out. But anyway, as long as you got it, if you can turn
2 to page two, this map 2 and figure 6. You have that?

3 **A. Yes. Map 2, figure 6B.**

4 Q. And am I correct in concluding that there is
5 native prairie habitat depicted by green coding on the
6 map in this figure 6?

7 **A. You are correct.**

8 Q. And the circles along the map, they actually
9 represent where the poles will be installed for the
10 transmission line; is that correct?

11 **A. No, this is the application from August of last**
12 **year. So it was the original -- this is, I'm sorry, the**
13 **transmission line application. So this did not show**
14 **specific pole locations. Since then, we've been working**
15 **to refine siting, so this does not necessarily show**
16 **where those poles will go currently.**

17 Q. Okay. So what are those --

18 **A. Those were the pole location and structures at**
19 **the time, but there have been shifts since then to**
20 **accommodate for siting such as avoiding native prairie.**

21 Q. Do you have an updated map of that anywhere in
22 the application?

23 **A. I believe we do. The updated transmission map**
24 **books.**

25 MS. FUREY: Yeah. And that is exhibit 2.

Public Hearing
3/8/2019

Page 16

1 Q. I guess what I'm looking for is a updated map
2 showing pole locations of how the transmission line will
3 impact native prairie because the way it was originally
4 presented to the commission, there were multiple poles
5 that were replaced right in the middle of native prairie
6 land looking at figure six. So has that been remedied
7 through additional micrositing?

8 A. That has. And my testimony today is based on the
9 status of current design. This application was submitted
10 in August of last year. So, you know, approximately a
11 six month duration. There's a lot of design refinement
12 that goes on. So my testimony as of today is current
13 that we will have no impact, no surface impacts to
14 Dakota skipper habitat.

15 Q. So there's not going to be a single transmission
16 pole located in native prairie land?

17 A. No. So native prairie and Dakota skipper habitat
18 or not always one in the same. You could have some
19 native prairie that is not also Dakota skipper habitat.

20 Q. Okay. So my question is since you're saying that
21 that figure six is not a current document and, I guess,
22 is obsolete, how does -- how does the placement of those
23 poles differ from then until now with respect to the
24 placement of the transmission line poles on native
25 prairie land?

1 A. So as I testified, there was no impact to Dakota
2 skipper. I'd have to check with my team about
3 non-suitable Dakota skipper native prairie impacts. But
4 we could have that for you in a few minutes.

5 Q. Well, I guess we'll deal with the the
6 transmission line thing and get some more clarity on
7 that, but with respect to the seven turbines that are
8 located on native prairie land, is it possible to move
9 those?

10 A. So I'd like to outline the process we used that
11 I testified about to move turbines off of native prairie
12 to begin with. So in light of our project learnings on
13 other projects in past cases for the hearing, as I
14 testified, we moved 55 turbines off of native prairie in
15 early 2018 so that was a very strategic decision. We
16 moved all of the highest performing turbines that most
17 significantly affected our financial model, so at the
18 time those turbines were not able to be moved and the
19 application before you is what we have presented now.

20 Q. So it's not possible to them because of the
21 highest producing wind turbines. Is that what I'm
22 understanding?

23 A. That was our decision making process. It's
24 always possible to move something but the application
25 before you now is how we have balanced land acre

1 preferences, all avoiding all environmental constraints
2 as well as land factors.

3 Q. So you just said it's always possible to move
4 turbines, so I guess my question is, how does the
5 placement of seven turbines on native prairie land
6 comport with your goal of avoiding impacts to native
7 prairie land when possible?

8 A. So a couple of things going on there. It seems
9 like one of your apprentices maybe that there are no
10 stakeholders, have a counter view to that. And I would
11 suggest that that's not been our experience. Many of our
12 landowners have gotten frustrated at us trying to move
13 turns off of prairie into their crops and have asked us
14 to do the opposite. So we try to balance environmental
15 constraints and normal preferences as we've testified,
16 and I've had no shortage of landowner concerns saying,
17 hey, why did you move the turbine into my crop out of
18 prairie? I want you to move it back. So that's been a
19 fair amount of landowner feedback we've received. So I
20 think it's important for the commission to understand
21 both of those perspectives.

22 Q. Now, you referenced a letter that the United
23 States Fish and Wildlife Service sent in November of
24 2018 in your testimony, do you recall that?

25 A. I did.

Public Hearing
3/8/2019

Page 19

1 Q. Now, in that letter it indicated that NextEra is
2 committed to formulating a voluntary litigation plan by
3 January 31, 2019. Are you aware of that?

4 **A. Yes.**

5 Q. Did NextEra actually commit to formulating a
6 voluntary mitigation plan?

7 **A. We did commit to formulating the plan and as I**
8 **had testified, we actually delivered.**

9 Q. When was that done?

10 **A. The offset plan is provided in, I believe,**
11 **exhibit, let's see here. First provided on February 15,**
12 **2019 and is exhibit 46.**

13 Q. Now, is that offset plan you're referencing the
14 same as a voluntary mitigation plan?

15 **A. Yes. It's one in the same.**

16 Q. Okay. Now, let's move on to talk about wetlands
17 a little bit. We agree that the project area is covering
18 a fairly substantial amount of wetlands?

19 **A. We differentiate here between a couple of**
20 **different kinds of water bodies. There are water bodies**
21 **that are core or jurisdictional meaning those are under**
22 **jurisdiction of the federal authority, the US Army Corps**
23 **of Engineers from prairie potholes that are isolated,**
24 **that are not under the core's jurisdiction. And then**
25 **there are two subcategories in that. One are water**

1 bodies that we determined were suitable wetland stopover
2 habitat, and then the others were those that were not
3 modeled as suitable stopover habitat. So we make that
4 distinction in this application.

5 Q. Okay. Ms. Wells, can you please turn to figure
6 14 of exhibit number four?

7 A. I'm sorry, what -- where in exhibit 4?

8 Q. Figure 14 of exhibit number four. Figure 14 of
9 exhibit number four. It's the wetlands and surface
10 water.

11 A. Yes, I believe we're looking at the same figure.

12 Q. Okay. So you just indicated to me that there
13 are jurisdictional wetlands and isolated wetlands; is
14 that correct?

15 A. That is correct.

16 Q. And are all of the isolated wetlands and
17 jurisdictional wetlands in the project area depicted in
18 this figure number 14?

19 A. They are. The green shows the isolated wetlands
20 and the pink shows the jurisdictional wetlands.

21 Q. Do you know what percentage of the project area
22 is covered by either isolated wetlands or jurisdictional
23 wildlands?

24 A. I believe we have that table in the application
25 that sums up -- give me a minute. I'm gonna go find that

1 if you'd like to know what it is. So on page 50 and
2 table seven dash two, we have a table of all of the land
3 cover types. So wetlands can be different kinds. Here
4 you see there are open water, emergent, there's woody
5 wetlands, all of those cover classes appear here. So you
6 would have to sum the various types. So if I did that
7 quickly, the percent -- okay. So the second -- the third
8 column, percent of project area open water is 4.7
9 percent, conversion or basis wetlands is 4.10. Woody
10 wetlands is point two so that would look to be between
11 eight and nine percent of the total project area.

12 Q. So it's your testimony that on figure 14, the
13 red and green portions of that map constituent eight or
14 nine percent of the project area?

15 A. So these are done using slightly different
16 classifications. So the table we just talked about is
17 based on broad land cover classes so that's a different
18 classifications scheme. To get wetlands, you would
19 roughly add all those up. This is based on the US Army
20 Corps of Engineers' jurisdiction, which is different. So
21 those are roughly comparable, but they are slightly
22 different criteria.

23 Q. Okay. Are you aware that North Dakota Game and
24 Fish indicated that the proposed project area is some of
25 the best of the best prairie habitat in North America?

1 **A. I am. And Mr. Derby will address that directly**
2 **in his testimony.**

3 Q. Do you have any reason to dispute that statement
4 by North Dakota Game and Fish?

5 **A. I prefer to let Mr. Derby tackle that in his**
6 **testimony.**

7 Q. Is that a no?

8 **A. I'm sorry. Could you repeat --**

9 Q. Is that a no?

10 **A. Could you repeat the question?**

11 Q. I said do you have any reason to dispute that
12 statement by North Dakota Game and Fish?

13 **A. I do.**

14 Q. And why is that?

15 **A. I think the basis of our disagreement comes down**
16 **to a characterization of the site. The correspondence**
17 **that we've received often characterizes the site in a**
18 **very different way than the agencies own data does. Mr.**
19 **Derby will dive into that in a little bit more detail in**
20 **his testimony, but we believe that it's important that**
21 **when two different entities look at the data, we're not**
22 **getting radically different conclusions, especially when**
23 **it's the agencies own data.**

24 Q. Okay. Well, in any event, we can agree that
25 wetlands serve as a habitat for various types of bird;

Public Hearing
3/8/2019

Page 23

1 right?

2 **A. Yes.**

3 Q. And a breeding bird survey was conducted for the
4 wind project; correct?

5 **A. Correct.**

6 Q. And that assessment was conducted from June 22nd
7 to June 26th and July 1st to July 5, 2017; is that
8 correct?

9 **A. I'd have to look at my testimony and the**
10 **application. Would you like me to do that now?**

11 Q. It's exhibit number 29 section 2.2.

12 **A. On page --**

13 Q. There's no page numbers. Section 2.2.

14 **A. That's correct.**

15 Q. And the third paragraph.

16 **A. Correct. The final paragraph of that indicates**
17 **that the surveys were conducted from June 22nd to June**
18 **26th and from July 1st to July 5, 2017.**

19 Q. So we agree that's 10 days of surveying;
20 correct?

21 **A. I believe that's accurate.**

22 Q. Were there any other on the ground surveys that
23 were conducted for breeding birds and the wind
24 project area?

25 **A. Yes. They were several surveys. There were aid**

1 and use surveys, there were echo use surveys conducted
2 for a year, they were raptor nests surveys,
3 sharp-tailed grouse lek surveys, numerous other surveys.
4 So this was one specific example that was conducted
5 specifically at the request of the Fish and Wildlife
6 service at the time.

7 Q. Okay. Are all of those surveys you just
8 discussed through, I guess, in your testimony, were all
9 of those done with boots on the ground on the site?

10 A. Yes. There's -- there's no other way to count
11 those birds without being on the site.

12 Q. So it's not a table top or a desktop type of --

13 A. No. Those are all sites specific counting birds
14 on the site.

15 Q. And were they -- was each survey done for a
16 different specific type of bird or, I guess, why were
17 there so many different types of studies?

18 A. So we do surveys based on species of interest as
19 expressed by agencies or concerned for other reasons.
20 So, for example, in the case of sharp-tailed grouse
21 leks, that was a very different kind of survey because
22 the birds are concentrated in one area so you look in
23 habitats where they would be likely to be, so you're not
24 going to find sharp-tailed grouse in forests or
25 woodlands. So the surveys are tailored to habitat type.

1 When you're looking for eagle surveys, you're looking at
2 things like visibility to make sure you detect all
3 eagles. So there are numerous different protocols that
4 were used and I should add all of those protocols were
5 run by both agencies when we were drafting our study.

6 Q. When you say both agencies, who are you
7 referring to?

8 A. The North Dakota Department of Game and Fish and
9 and the Fish and Wildlife Service.

10 Q. Do we agree that the project area is a pretty
11 ideal breeding ground for ducks?

12 A. It is an established area in prairie potholes
13 where ducks are produced, yes.

14 Q. Okay. Are you familiar with the local setting
15 decision by North Dakota Game and Fish indicating that
16 the used estimate number of duck areas that would be
17 displaced as a result of this wind project?

18 A. Could you reference me to a specific letter or
19 section of the letter you're referring?

20 Q. Sure. I'm looking at exhibit number, four C and
21 it's the North Dakota Game and Fish letter and it's on
22 page three.

23 A. Could you reference the specific letter date so
24 I can find where you're referring to?

25 Q. Yeah. It's November 16, 2017.

Public Hearing
3/8/2019

Page 26

1 **A. And you're looking at a letter on letterhead?**

2 Q. Yeah. From North Dakota Game and Fish number --
3 oh, excuse me. It is May 22, 2018.

4 **A. All right. I have the right appendix C. Say that**
5 **for me one more time, please?**

6 Q. Sure. It's exhibit number four, appendix C and
7 then it's in -- on page three.

8 **A. Are you asking about the letter dated November**
9 **16, 2017?**

10 Q. I'm asking you about the letter dated May 22,
11 2018 so turn the page and then it would be on the back
12 of the first page. You see at the top where it says
13 project area?

14 **A. Yes, I do.**

15 Q. Okay. So then if we go down to paragraph that's
16 numbered, paragraph two. It talks about the local siting
17 decisions support tool. Are you familiar with that tool?

18 **A. I believe that's the same tool that service and**
19 **offer of this research that Chuck Lesh with the habitat**
20 **team actually provided an excerpt, so, yes, I'm familiar**
21 **with that.**

22 Q. Now, using this tool, North Dakota Game and Fish
23 and the project would result in a reduction of nearly
24 3,300 breeding duck pairs. And it also appears that
25 these ducks are territorial and a number of defined

Public Hearing
3/8/2019

Page 27

1 breeding ground is a suitable for what's in the project
2 area. Do you have any reason to dispute that statement
3 from North Dakota Game and Fish?

4 **A. There are a couple of things we use to evaluate**
5 **our impacts on wetlands. One of them was the sources of**
6 **best available science that both wildlife agencies**
7 **referred us to. So part of that involves looking at what**
8 **are called indirect impacts, meaning if you don't have**
9 **an impact directly to the wetland but a duck moves away**
10 **from the wetland, that's an example of an indirect**
11 **impact as opposed to a direct impact. A direct impact**
12 **was a direct and immediate physical impact on a duck. So**
13 **based on the agency's recommendations, we incorporated**
14 **all of the papers that they have sited and their letters**
15 **to us to address what happens with indirect impacts.**
16 **What that translates to is part of our offset package**
17 **calculations and how that was calculated to address**
18 **impacts to waterfowl because there may be some indirect**
19 **impacts with ducks.**

20 **Q. So just -- there's a lot there so I just want to**
21 **unpack it. With respect to an indirect impact, are you**
22 **saying that, let's just use a wind turbine for an**
23 **example, is put in the ground and a duck is -- or I**
24 **guess anything, any type of animal is moved to another**
25 **location, that's indirect impact?**

1 A. That's an example. So behavior away from
2 something would be an example of an indirect impact. A
3 direct impact would be a direct impact to habitat
4 meaning something affected that habitat or the bird or
5 the animal itself. That's the different between indirect
6 and direct impact. So this is referencing indirect
7 impacts that have a fair amount of uncertainty. We
8 factored that in into our offset calculations using the
9 two citations that both agencies recommend because when
10 you have an indirect impact, it's not that the animal
11 dies necessarily. The animal may move away, but the
12 bottom line is we don't know what happened to those
13 birds. We don't know where they went. We don't know if
14 they went to the pond next door. We don't know if they
15 moved for a day, a week, a year. There's uncertainty. So
16 we have addressed that in our offset calculations and
17 that's what I outlined in my methods that are exhibit 46
18 and 47.

19 MS. FUREY: Mr. Schmidt, our witness, Mr.
20 Clayton Derby, can provide additional information
21 regarding this specific line of questioning.

22 Q. Okay, let's move on to the sharp-tailed grouse.
23 I just have a couple of basic questions. You did talk
24 about it a little bit so I want to ask you a few things
25 about it. There was a study that was conducted for

1 sharp-tailed grouse leks in April 2017, is that
2 accurate?

3 **A. That sounds accurate.**

4 Q. What's a lek?

5 **A. As one of my favorite biologist says, think of**
6 **it like a singles bar. So a lek is an area where**
7 **sharp-tailed grouse or prairie grouse gather. It's**
8 **usually an elevated mound, the males have air sacs in**
9 **their neck that typically inflate to attract females. So**
10 **females show up to the singles bar, if you will, decide**
11 **who has the best looking air sac and concentrate their**
12 **breeding that way. So it's sort of sexual selection. A**
13 **lek is a singles bar basically.**

14 Q. So it's my understanding that within a half mile
15 of the proposed wind project, there are 20 singles bars
16 for these leks?

17 **A. I would have to look at the actual exhibit. I**
18 **believe that number is high for the 200 megawatt**
19 **project. I can look here at the amended.**

20 Q. I believe it was exhibit number 25. Exhibit
21 number 25, page four is the results of the sharp-tailed
22 grouse lek survey.

23 **A. So I'm sorry, repeat your question?**

24 Q. Sure. The question was there were 20 grouse leks
25 within the half mile buffer project area?

1 A. If you're looking at a particular point in the
2 document, could you reference the page so I don't have
3 to hunt?

4 Q. Exhibit number 25, again, there's no page
5 numbers on there.

6 A. Or maybe the section or the header?

7 Q. There's no section numbers in there. It's the
8 fourth page under results and then sharp-tailed grouse
9 lek survey result summary.

10 A. So in this paragraph I see reference to the six
11 -- I see reference to the reduced 200 megawatt project
12 area only containing six confirmed leks. I believe you
13 were asking me about 20 so that would be incorrect.

14 Q. Okay. My question was how many are in the half
15 mile lek buffer?

16 A. Let's see. There were six additional leks that
17 were caused -- that were between the 200 and 300
18 megawatt project. Let's see, 14 leks were located
19 outside the 200 megawatt project boundary but within a
20 half mile lek buffer. So there'd be 20 in the 200
21 megawatt area plus the 0.5 mile buffer if that's what
22 you're asking.

23 A. Yes, that's what I'm asking. So if I'm
24 understanding this correctly, there'd be 12.8 grouse per
25 lek on average; is that correct?

1 **A. I believe that sounds accurate, again, if you**
2 **could point me to the specific place you're looking at.**

3 Q. The next sentence.

4 **A. Yes, I do see that. You're correct.**

5 Q. Okay. Now, North Dakota Game and Fish indicated
6 that the population of the grouse will increase
7 substantially in the fall of the year. Now, we already
8 talked about the study being done in the spring of the
9 year. Do you have any reason to dispute North Dakota
10 Game and Fish's conclusion that the grouse population
11 would be higher in the fall than in the spring?

12 **A. I'm not personally familiar with that**
13 **literature, but Mr. Derby will address that as I**
14 **previously testified.**

15 Q. Are you aware of any studies or any studies
16 indicating that grouse will avoid tall structures and
17 humans?

18 **A. I am aware of a few studies that attempted to**
19 **make that inference, so there is a particular citation**
20 **that attempted to infer that tall structures included**
21 **things from transmission towers to foals and other**
22 **things could be extrapolated to wind turbines but didn't**
23 **actually study the wind turbines. I'm also aware of**
24 **several studies by Brett Sandercock out of Kent State**
25 **that looked at some related prairie grouse and it showed**

1 that there is no consistent avoidance or impact of
2 turbines as a subset of potential tall structures on
3 grouse, so I believe that data is as rather
4 inconclusive. However, as I mentioned, Mr. Derby is more
5 of an expert in that area and he will testify to that.

6 Q. There was an eagle survey that was done for this
7 project as well; correct?

8 A. That is correct.

9 Q. And has NextEra prepared an eagle conservation
10 plan to submit to U.S. Fish and Wildlife Service?

11 A. No, an eagle conservation plan is the vehicle by
12 which you submit to the Fish and Wildlife Service if
13 you're pursuing an eagle take permit. As I've testified
14 today, our eagle risk is low. There's no eagle nest in
15 the project or within 10 miles, so there's no reason to
16 believe that that's a needed measure with our low risk.

17 Q. You also performed a survey on sprigs pipet, is
18 that correct?

19 A. So there was a cross line breeding birds. It
20 wasn't specifically for the sprigs pipet. That is an
21 example of a breed or a kind of species of concern.

22 Q. So this survey encompasses sprigs pipet?

23 A. That would be more accurate, yes.

24 Q. And you said a bird of conservation concern,
25 what does that mean?

1 A. So a bird of conservation concern can mean a few
2 things. To the North Dakota Department of Game and Fish
3 it's generally a species that's on their State Wildlife
4 Action Plan, which is a planning document that all state
5 wildlife agencies have that highlights species they
6 believe are rare or declining. So that's -- that's the
7 general use of that term.

8 Q. And did the study show that there were any sprig
9 pipets found within the wind project area?

10 A. I would have to open the specific report if you
11 want to talk about individual detections but as I
12 testified, the highest frequency of current of all the
13 grassland species of concern which includes that as well
14 as sparrow were actually found outside of the project
15 area, so, for example, looking at this project map to my
16 right, the area outside of the 200 megawatt project in
17 black, but in the southeastern corner, that's in the 300
18 megawatt project in yellow, the highest concentration of
19 any of the grassland pieces of concern was in that area
20 that's now avoided by the project and no longer within
21 the 200 megawatt project area.

22 MR. DAWSON: What is exhibit number of
23 that, ma'am? It's right on the bottom corner.

24 A. 37.

25 MR. DAWSON: 37. Thank you.

1 Q. Was a study for the sprigs pipet conducted for
2 the transmission line as well?

3 **A. No, we don't typically conduct avian use surveys**
4 **for transmission lines. The focus there is on siting and**
5 **adding bird numbers.**

6 Q. So North Dakota Game and Fish indicated that the
7 transmission line was one of the few places in North
8 Dakota where this sprigs pipet still exists. Do you have
9 any reason to dispute that statement?

10 **A. I'm not sure the specific source of that data**
11 **but they are known to occur in this general area of the**
12 **state.**

13 Q. Okay. And North Dakota Game and Fish also stated
14 concern with this project will increase the risk of
15 mortality in the sprigs pipet. Do you have any reason to
16 disagree or contest that statement from Game and Fish?

17 **A. Yes. I believe Mr. Derby will address this in**
18 **more detail, but my knowledge of the peer reviewed**
19 **literature of the effects of wind on a population level**
20 **effects on grasslands sound birds was generally not**
21 **shown with a a detectable effect. So we would not expect**
22 **a population level impact. And Mr. Derby will address**
23 **that further as I testified.**

24 Q. Can I have you turn to exhibit number four,
25 figure 17 for my next line of questions.

1 **A. Are we looking at the map of the whooping**
2 **cranes, figure 17?**

3 Q. We are.

4 **A. Okay.**

5 Q. So I think looking at figure 17, it's pretty
6 clear that this project is in the middle of the whooping
7 crane corridor, is that fair to say?

8 **A. That's correct.**

9 Q. Can you just explain how one should really read
10 this map because it looks like we have 75 percent in the
11 middle and then use 80 percent, 85, 90, 95 percent as we
12 work our way out but how should we interpret that?

13 **A. Sure. I'd be happy to tackle that. So what this**
14 **map represents is the percentage of detections from the**
15 **U.S. Fish and Wildlife Service's efforts to radio track**
16 **birds that have tabs on them so they can be relocated.**
17 **So the core part is in the middle. So you have the**
18 **highest probability of having all of the detections in**
19 **the middle. As you move out to the edges, the**
20 **probability of detecting birds get smaller. So the**
21 **majority of them are in the core and then it's less**
22 **concentrated as you get out to the edges. So we are in**
23 **the middle in the 75 percent probability of the**
24 **corridor.**

25 Q. And whooping cranes are an endangered species,

1 is that correct?

2 **A. That is correct. They are federally listed.**

3 Q. And the whooping crane is known to use wetland
4 habitats within an agricultural landscape during the
5 migrations stopover, is that an accurate statement?

6 **A. Yes, I would agree with that.**

7 Q. So is it fair to say that wetlands are generally
8 considered to be suitable stopover habitat for a
9 whooping crane?

10 **A. That is one of several criteria, but not all of**
11 **them. So, in general, cranes like wetlands that have**
12 **some of the field division, if you can imagine, if**
13 **you've ever seen a whooping crane, they're fairly large**
14 **birds and they're not such great flyers when they take**
15 **off. So they need to be able to have a field of view to**
16 **see an approaching predator. They also don't typically**
17 **seem to be found as much in wetlands that have thick**
18 **vegetation, so picture cattails or other things that are**
19 **very thick so it obscures that view. So all wetlands are**
20 **not equal for suitability for whooping cranes. That was**
21 **part of the purpose of our habitat suitability**
22 **assessment was to look at literature derived values for**
23 **figuring out which wetlands might have suitable stopover**
24 **habitat, which is definitely a subset of all wetlands.**

25 Q. Can I have you turn exhibit number 27 and figure

1 six of that exhibit.

2 **A. So I'm looking at a report addendum, exhibit 27?**

3 Q. Yep. It's exhibit number 27 and then it's figure
4 6. Should be the Desktop Whooping Crane Habitat
5 Assessment and it's the identified wetland habitats map.

6 **A. Did you say figure 6?**

7 Q. Figure number six.

8 **A. Okay.**

9 Q. Okay. So this is -- this map, I guess, the title
10 of it is identified wetland habitat and it's the desktop
11 whooping crane habitat assessment. We look at the actual
12 map and looks like, at least from my viewpoint, the
13 entire project area is a wetland habitat, is that
14 correct?

15 **A. No, it isn't. What I think you have done is pick**
16 **out a snapshot of the maps but not the whole process. So**
17 **if you actually flip to the next page, which is figure**
18 **seven, the assessed wetland habitat maps, these maps**
19 **are depicting a stage of stages of processes that go**
20 **through and eliminate habitats that don't meet criteria.**
21 **So if you look at figure six, you see okay, first,**
22 **that's where the wetlands intersects figures seven --**

23 Q. Hold on, what do you mean that's where the
24 wetlands intersect?

25 **A. I was going to explain that. Can I finish**

1 explaining it so you might understand it better.

2 Q. Go ahead.

3 A. So there's a process when you're looking at what
4 habitats are suitable for greens as described, so this
5 is step one. It's figured out desktop basis where all
6 the wetlands are. That's what the yellow is. That's not
7 the result though. That's step one. So step two, you
8 flip through to seven. It's taking out areas that are
9 near development or other areas where cranes are known
10 to avoid, so it's -- these are interim steps. If you
11 flip to step eight or step three, figure eight, the
12 results or what's left are the habitats so the graphics
13 are to help you step through and see the visual
14 representation of that decision making process.

15 Q. So figure eight is the one that has what you
16 consider to be suitable habitat for a whooping crane; is
17 that correct?

18 A. Yes. Figure 8 is titled potential suitable
19 habitats. Now that is not the result that I think you
20 should focus on.

21 Q. So figure six and figure seven, in your opinion,
22 don't tell us much; is that correct?

23 A. No. As I've testified, they are steps to the
24 result. It's a multistep process. They show different
25 layers in the GIS exercise, which is a calculated

1 **exercise.**

2 Q. Now, I understand that the research is pretty
3 clear that the wind turbines have not been found to be a
4 cause of death to the whooping crane; is that generally
5 correct?

6 **A. It's generally correct that there are no**
7 **documented instances of whooping cranes dying or being**
8 **injured that I'm aware of for cladding with wind**
9 **turbines, yes.**

10 Q. What about overhead transmission lines?

11 **A. That is a known threat to whooping cranes, which**
12 **is why we put bird divertors on our entire transmission**
13 **line.**

14 Q. And I understand these bird divertors are
15 called aviation flight diverter, is that the term that's
16 used?

17 **A. You might be thinking of aviation marker balls**
18 **which are not the same. So if you're ever driving by a**
19 **transmission line, you may look up and see round --**
20 **they're literally like -- they look like giant plastic**
21 **balls on the line. Often, those are for aviation safety.**
22 **They have nothing to do with birds. So the two criteria**
23 **we use when looking for a bird divertor are motion and**
24 **visibility. So the idea is a whooping crane or any bird**
25 **is most at risk of collision with the line when the**

1 weather is poor, visibility is poor and they're either
2 descending or ascending. So the idea with motion and
3 flight is if the diverter is moving and it has
4 reflective stripes, you have a maximum chance of the
5 bird seeing that and then changing course, which is, in
6 fact, what the literature has shown that whooping cranes
7 do sometimes avoid transmission lines. So bird diverters
8 are an effective measures.

9 Q. So the bird diverters essentially make the
10 transmission line more visible to the bird; is that --

11 A. That is correct.

12 Q. Now, as part of your mitigation plan with
13 respect to birds, the application indicates that NextEra
14 will conduct one year post construction monitoring to
15 better understand bird and bat impacts that are
16 attributable to the Burke Wind Operation. I guess what
17 are you going to do with the findings when you're
18 studying?

19 A. As we've committed to in all the last hearings,
20 we will share them with the agencies.

21 Q. And any other potential steps?

22 A. The purpose of doing post construction mortality
23 monitoring is to make sure that our assumptions of risks
24 going into the project are accurate. Based on our
25 operating portfolio in North Dakota, we would expect

Public Hearing
3/8/2019

Page 41

1 that to be the case and we expect that to be within the
2 range of patterns we've observed. If that's not the
3 case, then obviously we want to look at that and do
4 something about it.

5 Q. I have no further questions.

6 MR. DAWSON: Mr. Lien?

7 MR. LIEN: I have no questions, Your
8 Honor.

9 MR. DAWSON: Commissioner Fedorchak.

10 MS. FEDORCHAK: Thank you, Dr. Wells and
11 Casey, if I might ask what -- remind me again what the
12 next witness is going to cover so that I don't delay
13 things by asking Dr. Wells questions that you want to
14 address with the next witness.

15 MS. FUREY: Thank you for the question.
16 Mr. Clayton Derby will speak to the assessment and kind
17 of interpretation of results of the wildlife studies and
18 as far as forests to wildlife and interpretations to
19 that. So a lot of these questions would be better
20 directed to Mr. Derby.

21 MS. FEDORCHAK: Okay. Dr. Wells talked
22 quite a lot about the various letters, so I have a lot
23 of questions about that.

24 MS. FUREY: Yes, that would be appropriate
25 for Dr. Wells to comment on.

1 BY MS. FEDORCHAK CROSS EXAMINATION

2 Q. Okay. So I'll attempt to direct my questions and
3 please bear with me. I'm not a biologist, I've never
4 even played one one TV. Just a service commissioner
5 trying to get to the facts in the case with some very
6 technical competing facts for us. Okay. I'm kind of
7 focusing on the bigger picture in the process. So going
8 -- you didn't dispute the fact that what the -- both
9 U.S. Fish and Wildlife and Game and Fish outlined that
10 they raised serious concerns about this project back in
11 2016 that in their read of the -- what are those -- what
12 is it called?

13 **A. The wind energy guidelines?**

14 Q. Yes. WEG, the according to those could have
15 easily triggered you guys to say this isn't the right
16 spot. Can you talk about the company's response to those
17 concerns raised three years ago when you were in the
18 early stages of development?

19 **A. Sure. So I think one of the things that happens**
20 **is often people who aren't familiar with wind energy**
21 **guidelines, as I've already testified, Game and Fish has**
22 **told us that that's sort of their view, they're not used**
23 **to working with it. And sometimes the Fish and Wildlife**
24 **Service themselves is often, there's this impression**
25 **that there is a decision tree with the wind energy**

1 guidelines where you get to a decision point and there's
2 only one outcome. That's actually not what the wind
3 energy guidelines written by the service outline.
4 There are three pre construction tiers and in each tier
5 you can get to a point where the decision is abandoned
6 or consider further studies, abandon or mitigate. So,
7 for example, the first step is are species of concern
8 known to be present? Yes. We answered yes. The outcome
9 choices after that are abandon or evaluate site specific
10 data. So what often happens is if there is uncertainty,
11 which in this case we have uncertainties, you proceed to
12 additional site specific detailed studies to evaluate
13 that risk.

14 Q. So back to my question was when they raised
15 those concerns, what was the company's response? You're
16 saying you guys studied it more? Is that what you
17 decided?

18 A. Our response at tier one was that we were going
19 to proceed to gather site specific data, which is one of
20 the decision points in tier one at that very early
21 stage. So we disagree with the characterization that
22 Game and Fish has painted and suggest that better their,
23 perhaps, lack of familiarity with the process may have
24 contributed to what they unfortunately included in their
25 letter that we don't feel is accurate.

Public Hearing
3/8/2019

Page 44

1 Q. Okay. Well putting Game and Fish aside and U.S.
2 Fish and Wildlife, is tier one what you would
3 characterize as your meetings with them in 2016, is that
4 tier one?

5 **A. Yes. Tier one is landscape level. You're only**
6 **doing desktop studies. So only things that you can get**
7 **from a computer that are publicly available, you**
8 **generally have no site specific data, so large regional**
9 **desktop kinds of things.**

10 Q. Okay. So their concerns that they outlined early
11 on in the process, which we've gone through this process
12 a number of times and often the problem is the companies
13 didn't engage early enough and get -- or the agencies
14 don't let the companies know early enough that there's a
15 problem with the site and so we waste all this time and
16 money in developing a site and then at the last minute
17 the agencies come in and say this is a bad site. Well
18 too late, but it doesn't seem like that happened here.
19 So what -- when they said this is a -- this site is a
20 concern, you guys then went and did more studies and
21 decided that it wasn't a concern or, I guess, I'm
22 curious why there wasn't more, why -- what am I missing
23 in terms of the company's response to those early, early
24 concerns that were expressed?

25 **A. So I think the key thing that's missing here is**

1 understanding the first step is really desktop data as
2 of course. So maybe I could draw an analogy. If you are
3 looking to sell your house and you wanted to figure out
4 the value you should list it for, would you go to
5 zillow.com or perhaps any website and would you look in
6 your whole town or your whole county or where would you
7 look? If I were going to go look, I would want to make
8 sure it's as close to my physical neighborhood as
9 possible that I had the best available street specific
10 information. So, for example, I live in a new
11 neighborhood. Neighborhoods around me are very
12 different. So I'd want a house in my neighborhood that
13 was comparable to my house. You don't have that
14 information available at tier one because by definition
15 it is desktop only.

16 Q. Okay. So the company decided they've got
17 concerns, we're going to study it more??

18 A. We did go on to study it more. I think the other
19 key place we differ on our interpretation of the wind
20 energy guidelines is the wind energy guidelines offer
21 you two outcome choices. It's abandoned or mitigate if
22 you feel like you have potential for adverse impacts. We
23 did feel that there was potential for adverse impacts;
24 however, as I've testified, we believe we have avoided,
25 minimized and mitigated. That is a pathway under the

1 wind energy guidelines. It is not a single path. It has
2 both options and I don't believe that that's accurately
3 represented in the North Dakota Department of Game and
4 Fish's letter.

5 Q. Okay. So when you were consulting with agencies
6 early on, it seems like one of the biggest responses and
7 it's significant that the company took to address the
8 concerns was to try and get from 300 to 200 and
9 increased above that wildlife area. Forget the name of
10 it now --

11 A. Lostwood.

12 Q. Lostwood. When they were -- would you agree that
13 that's one of the most significant steps the company to
14 took to address the concerns? I believe you testified to
15 that effect?

16 A. It was; however, it wasn't the first step we
17 took. The first step we took in early 2018 is we removed
18 55 turbines, which is most of the project off of native
19 prairie. We left only five of our highest performing
20 turbines tied to our financial performance in that area.
21 So we view that as the most significant avoidance
22 minimization mitigation measure we took. Following that,
23 we also reduced the project size from 300 megawatts to
24 200 megawatts.

25 Q. Okay.

1 **A. So those are the two main things.**

2 Q. All right. And those were addressing the two big
3 concerns that they outlined in your opinion?

4 **A. Yes.**

5 Q. Of the early, early consultation was that
6 Lostwood area and native prairie?

7 **A. Correct. The offsets were sort of the third**
8 **prong more recently.**

9 Q. Now, again, so the impacts to native prairie
10 when you put a tower in the native prairie, it impacts
11 the actual physical space where you construct, right?
12 You're digging up the ground.

13 **A. Yes. You call that a direct impact, yes.**

14 Q. Okay. When it comes to birds though, does it --
15 can you -- it seems like the impact on the birds isn't
16 just the ground, it's everywhere in the air. So how does
17 moving the 55 turbines off of that -- it's a big impact
18 for that native prairie and the ecosystem in that
19 prairie and I understand that and appreciate that a lot,
20 but how does it reduce the impact on the birds?

21 **A. So the biggest impact would have just been**
22 **moving it out of native prairie so the two types of**
23 **impacts you're asking about are direct, meaning, you**
24 **have native prairie and are going through and actually**
25 **digging up that soil. That's a direct impact. Indirect**

1 impacts is perhaps moving away, a behavioral shift
2 that's indirect. So biggest way to avoid that is by
3 moving out of that habitat, which is what we did with
4 all the 55 turbines that we moved initially, so that was
5 the first big step. I think what I'm also hearing from
6 your question is a little bit about understanding direct
7 versus indirect compacts.

8 Q. Well, yeah, especially as it relates to birds.

9 A. So think of the main type of indirect bid
10 behavior as a movement away. So think about the analogy
11 I have, this happened on my way here on another airline
12 that might be the most likely to make you unhappy. If
13 you have a neighbor sitting next to you on the plane who
14 either is insisting on not using their headphones or is
15 blaring their music so loudly you can hear their music
16 over your headphones and their headphones, you know,
17 that's, you know, that's a near proximate, that's a very
18 near proximate effect. That's more certain. With
19 indirect impacts, things are a little bit more
20 uncertain. So the behavior, birds may move away from
21 something, but we don't know. And the uncertainty is
22 where do they go? How long do they go away and what does
23 that do? If the bird just moves next door for a day, a
24 week, a year, those are very different outcomes. If the
25 bird moves to the area next door, but there's no change

1 in whether it can breed or survive, it may have no
2 impact. So there are some very good studies from North
3 Dakota that have been cited, but there's still a
4 significant amount of uncertainty on how strong those
5 indirect impacts on birds in particular are. There is no
6 doubt and we have no issue with, yes, there are direct
7 impacts to habitat, but indirect impacts that's much
8 more uncertain.

9 Q. When you -- earlier in talking with Brian you
10 disputed the Game and Fish's and Fish and Wildlife's
11 characterization of this area as some of the best of the
12 best breeding area for these certain types of wildlife,
13 did you --- have you in any of your consultations with
14 Game and Fish or did you early on, again, when this
15 consultation first started outline to these agencies,
16 okay, we disagree with that characterization of this
17 area as a best of the best and outline and point to them
18 like here's what you guys say be cause you said it's
19 some of their very own data doesn't support that
20 characterization. So did -- have you gone through all
21 that with them and had those discussions?

22 A. So most of that specific data is what you do in
23 tier three. So we have recently finalized all that data,
24 shared all the reports with them and recently had that
25 specific discussion and Mr. Derby will testify about

1 **that as part of his testimony.**

2 Q. Okay. This might be repetitive, I'm sorry, but
3 how -- how would you define the impact of wind turbines
4 on wildlife as it relates to a pot, is it just you
5 eliminate the impact and you don't put the turbine in
6 the pothole? Does that eliminate the impact to the bird,
7 to the wildlife for the birds in particular?

8 **A. So I think you could have more of a direct or an**
9 **indirect impact there. Sort of as we've been talking**
10 **about.**

11 Q. But all direct impacts would be eliminated if
12 you didn't physically impact the pothole with the
13 turbine?

14 **A. I think that's probably much more uncertain in**
15 **the absence of a direct impact. I think an indirect**
16 **impact is probably exceedingly rare compliment. I**
17 **suppose it's possible. I don't really think there's any**
18 **solid literature on that, but I imagine Mr. Derby will**
19 **address that more in his testimony as well, and we'd be**
20 **happy to answer your questions with his own eyes.**

21 Q. So, again, this is kind of I'm trying to better
22 understand some of the terminology that's being used and
23 how it really matters in the end. So you got
24 jurisdictional and non-jurisdictional wetlands, I'm
25 assuming wildlife doesn't make those distinctions?

1 **A. Correct. Just like state boundaries don't matter**
2 **to birds. It's all geopolitical boundaries --**

3 Q. We can all agree that no duck knows that they're
4 in the U.S. Corps of Engineers jurisdiction.

5 **A. Right. Ducks don't care.**

6 Q. So how do we use those distinctions to determine
7 the impact of this project on wildlife when it seems
8 like we're being asked by the company to say, okay, we
9 don't impact any jurisdictional wetland, so it's not as
10 big of a deal or I mean I'm just kind of generalizing,
11 but you're not impacting the jurisdictional wetlands.
12 And so that mitigate -- that avoids a bunch of concerns?

13 **A. So I think my answer there relates to your**
14 **siting criteria. So the way we always sited is using**
15 **jurisdictional wetlands as your exclusion and avoidance**
16 **criteria. So we focused on that because those are --**
17 **that's our interpretation of your siting requirements.**
18 **Now even above and beyond that and avoided all**
19 **additional wetlands regardless of jurisdictional status,**
20 **if they had any stopover value for whooping cranes. So**
21 **avoided all of those. What's left is a very small amount**
22 **of non-jurisdictional wetlands that don't have model**
23 **value for whooping cranes that I testified about. So we**
24 **view that as a very small and negligible amount of the**
25 **whole project.**

Public Hearing
3/8/2019

Page 52

1 Q. Okay. So just a second ago you said you've
2 avoided impacting those spots. How have you avoided
3 that?

4 A. Through -- for all direct impacts, through
5 siting, so when I say direct impact, that means there's
6 no structure, there's no road, there's no impact, direct
7 impact that's going to occur in those areas.

8 Q. And so here is where I think I'm having the
9 biggest challenge in determining, so does that remove
10 the wildlife concern then just by virtue of not putting
11 a tower in that spot, then have we eliminated the
12 concerns for the whooping cranes, for the ducks, for the
13 sprigs pipet, for the western meadowlark. I mean, does
14 that -- is that concern over then?

15 A. In our view, the whole package of avoidance
16 minimization and mitigation measures we've summarized do
17 address the concerns, yes, that is our position.

18 Q. That by not putting them in those places, then
19 we've avoided the impact?

20 A. That's avoidance, so there's -- it's called a
21 mitigation hierarchy. So the first option is avoidance.
22 So physically you can, instead of putting a pole or a
23 structure in the wetland, avoid putting something there.
24 So that's preference one. So, yes, that's an example. So
25 the next step is minimization. Okay. If you can't

1 completely avoid that, minimize those circumstances to
2 the maximum degree possible. After that, if you have
3 residual, that's when you mitigate. And in this case,
4 that's what we've done with a lot of the measures we've
5 described, including the voluntary offsets to address
6 some of those residual impacts, so we believe those
7 package -- that package of materials that we've
8 described does address those wildlife concerns pursuant
9 to your criteria.

10 Q. Okay. And so how do you minimize?

11 A. An example of minimization would be, say, you're
12 looking to site transmission line poles and you first
13 tried to avoid putting poles in wetlands. Let's say you
14 could do that for eight out of the ten poles. So then
15 you minimize the impact of pole and the wetland so two
16 of the 10 you couldn't avoid. One of the scenarios we
17 have happen a lot is we have a lot of agricultural
18 landowners. They don't want poles in the middle of their
19 field. They want on them on the edge of the field. They
20 want it to interfere with our operations the least
21 amount. And so we may get in a situation where due to a
22 conflict between landowner preferences to minimize their
23 operations and minimize impacts, we have to be in the
24 wetland, but we're minimizing how far in the wetland we
25 have to go. We may add crane matting or things which are

1 put underneath construction equipment to minimize
2 impacts on that wetland when the impacts are occurring
3 and we keep those impacts temporary so they're not
4 permanent. So those are examples of minimization.

5 Q. Okay. And then similarly on the wetlands with
6 the transmission line, I think I heard, I could be wrong
7 but I thought I heard you say that by spanning the
8 wetland and not putting the poles in it, you've avoided
9 the impact or the eliminated the impact of that
10 infrastructure for the whooping crane?

11 A. So that's a couple folds. That's a direct impact
12 to the wetland by -- so the transmission line could
13 still run over the wetland. We add the bird diverter.
14 The bird diverter is the mitigation to reduce the risk
15 of injury or collision with the bird.

16 Q. Okay.

17 A. So that's a key part of that for whooping cranes
18 specifically.

19 Q. All right. So then I -- I want to speak -- I
20 don't have a lot left. I want to speak -- go back to the
21 criteria, our siting criteria and, ultimately, that's
22 what this all comes down to. So you testified that --
23 and the application also provides this that you don't
24 impact any exclusion areas or it's minimal. So like the
25 farmland is at such a minimum level that it's

1 negligible. So are areas critical to the stages
2 threatened or endangered animal plant species, how do
3 you rectify that with the whooping cranes, again,
4 considering you're right in the middle of the fly way
5 and they're an endangered species?

6 **A. So consistent with how we've always sited**
7 **projects or how we interpret that to mean is there a**
8 **federally designated critical habitat present and the**
9 **answer is no as we've included in our application.**

10 Q. Okay. And I -- can you help me understand the --
11 there's a definition that Game and Fish uses, what is it
12 called? Conservation -- species of conservation priority
13 or something like that. Is that the right term?

14 **A. I think I know what you're referring to and I**
15 **think it may be similar to --**

16 Q. Yeah, species of conservation priority. That's
17 the -- this guideline or manual or something that lists
18 all of these. Is that the same as an animal, rare or
19 unique to the state?

20 **A. No, we do not interpret that to be the same. So**
21 **I believe the phrase you were just asking you about is**
22 **very similar to what Mr. Schmidt was talking to me about**
23 **earlier when I responded that the state has the state**
24 **wildlife action plan. That is a broad list of all**
25 **species. So it is a much larger subset than, say, those**

1 **species that are on the federal endangered species list.**
2 **So you can include species that are not rare by**
3 **definition. So, no, we don't view those as the same.**

4 Q. Okay. So where is the definition for species
5 that are rare or unique to the state? Where do the --
6 where does the company find that list? Is that -- does
7 that exist some place?

8 **A. I'm not aware of anywhere in your regs where**
9 **you've codified that means this, the other, or another**
10 **species. Is that what you're asking me?**

11 Q. Yeah. Well, it's -- it's an exclusion area so
12 you can't impact an area where animals and plants
13 species that are unique or rare to the state would be
14 irreversibly damaged. So how does the company say you
15 don't have that? What -- how do you know that? What list
16 did you use to determine what species fall into that
17 category, unique or rare to the state.

18 **A. We used the species that are either -- that are**
19 **federally listed, so federally listed on the Endangered**
20 **Species Act, and those are the species that we have**
21 **outlined in our application.**

22 Q. Okay. Have you any reason to think that the Game
23 and Fish would define that as these conservation species
24 of conservation priority, that they would view this term
25 in our exclusion area as species that are unique or rare

1 to the state being the same as these species of
2 conservation priority?

3 **A. I believe there is some overlap. However, I**
4 **think that would result in a significant expansion and**
5 **broadening of your scope based on discussions with local**
6 **counsel, that's never been our interpretation of your**
7 **citing regulations.**

8 Q. Okay. And they never suggested that in your
9 consultations with them either?

10 **A. No, they have directly suggested they would like**
11 **a different definition of what the PSC's regulations**
12 **allow and require to be used and that's I think a**
13 **fundamental, perhaps, source of disagreement between**
14 **yourselves and some of these state agencies that you**
15 **work with.**

16 Q. They would like a different definition than
17 unique or rare to the state?

18 **A. They would like a more broadly defined or**
19 **inclusive meaning many more species to be included than**
20 **I understand to be how the commission has previously**
21 **interpreted that by either precedent or citing**
22 **regulations.**

23 Q. Well, this -- I mean, I've -- if we just start
24 talking about threatened or endangered species, then why
25 do we list it again, it's two categories. That's what

Public Hearing
3/8/2019

Page 58

1 that one already covered right above. I mean, so it
2 seems like there is some distinction here in the law for
3 what is it that the species that are unique or rare to
4 the state are different than the threatened and
5 endangered species. Otherwise, we wouldn't list that
6 separately in our exclusion areas.

7 **A. That's really something we've worked through**
8 **with local counsel based on precedent and our**
9 **interpretation of your siting regulations. I'm aware**
10 **that that's a source of disagreement. We've just never**
11 **seen you interpret it in a different way than that and**
12 **we've never done that in front of you either.**

13 Q. Okay. I'll visit with our staff about that.

14 MS. FUREY: Commissioner Fedorchak, Mr.
15 Derby can speak to species of conservation priorities in
16 more detail.

17 Q. Okay. Why not, right? Okay. Then that's
18 exclusion areas. Avoidance areas, this gets into the
19 wetlands. So woodlands and wetlands, the avoidance area,
20 is it state that it's just jurisdictional wetlands that
21 are impacted in the avoidance area category of woodlands
22 and wetlands?

23 **A. No, but it doesn't state the opposite either, so**
24 **my response would be the same as based on conversations**
25 **with local counsel and interpretation of how we've**

1 appeared before you in the past and your precedent, that
2 seems consistent with how you've interpreted it for past
3 cases.

4 Q. Okay. So that's why you avoided the impact to
5 the jurisdictional wetlands and believe that you've
6 addressed this avoidance area?

7 A. Correct.

8 Q. Okay. If you're asked further to clarify in the
9 record that there's no reasonable alternative to
10 impacting, could you do that?

11 A. I believe we could. We'd have to take a look and
12 I don't know the answer to that off the top of my head,
13 but we'd have to look at that.

14 Q. Okay. Okay. I -- just one final question. Are
15 you the highest environmental expert in NextEra, are you
16 kind of the top dog?

17 A. No, I work at a corporate environmental services
18 group. My team handles this state, but no, I'm not. My
19 Vice President, Mr. Mike Soul is the top environmental
20 representative of our corporate group.

21 Q. Okay. And has he been involved in any of these
22 conversations with Fish and Wildlife and Game and Fish
23 on this project?

24 A. He has, particularly with Director Steinwand of
25 Game and Fish.

Public Hearing

3/8/2019

Page 60

1 Q. Okay. And early on, was he involved from like
2 back in 2016 when things were just getting rolling?

3 A. He wasn't with us yet at the time in the current
4 role, but he's certainly been involved over the last
5 year, year and a half. When I'd say from an applicant's
6 perspective, the agency interacting has gotten
7 increasingly frustrating.

8 Q. And has the person that was in his role prior to
9 -- previous, was that person involved early on in those
10 initial interactions with you and Fish and Wildlife and
11 Game and Fish on this project?

12 A. No, he was not. Those interactions would
13 typically occur at the project manager or one of those
14 levels. They would not typically involve our vice
15 president.

16 Q. Is there -- would there -- would you have the
17 authority to recommend to your company that this is not
18 a good location from an environmental standpoint and
19 they should go elsewhere and look elsewhere?

20 A. I can recommend things. I just don't have the
21 authority to make the decision. Our commercial
22 development team makes those decisions. So Mr. Hart.

23 Q. Mr. Hart makes -- he would make that decision
24 but you can recommend like this is -- this is -- like we
25 have serious environmental concerns here and and we

1 think that this might not be the best location?

2 **A. Yes. I can only make recommendations. Mr. Hart**
3 **and the commercial team are the development and the**
4 **decision makers in terms of that outcome.**

5 Q. Do you -- are you aware of you or anybody else
6 in the environmental group ever making that
7 recommendation on this site?

8 **A. We have expressed concerns. In fact, those**
9 **concerns were one of the primary reasons we reduced the**
10 **project from 300 megawatts to 200 megawatts. It was**
11 **partly at my urging that I thought it was important that**
12 **we do that and it was something that I felt strongly.**

13 Q. Okay. And so with your experience, you've been
14 doing this a long time and you've got a lot of education
15 in this area, do you believe that this project is now
16 going to have impacts to this really amazing wildlife
17 resource that has been described to us by both U.S. Fish
18 and Wildlife and Game and Fish, is that going to have
19 negative impacts on that resource?

20 **A. My answer to that would be there is potential**
21 **for impacts, which is why we have mitigated and outlined**
22 **all the measures that we contributed to avoid, minimize**
23 **and mitigate. So we believe with those mitigations our**
24 **effect has been appropriately minimized consistent with**
25 **your sitting regulations, so that is our -- our**

1 position. Mr. Derby will testify specifically to the
2 characterization of this site as unique compared to
3 other sites that the commission is permitted in the past
4 and will address that more directly.

5 Q. Okay. But more simply, as a wildlife expert, do
6 you believe that the impact of this project is going to
7 have on this site are not of concern?

8 A. I believe there's a big space between a
9 potential for an impact and the potential -- the
10 potential for an impact and whether one occurs. The
11 space between that is where avoidance, minimization and
12 mitigation occurs. So in the absence of all the
13 mitigation, sure, there is the potential; however, we
14 have avoided, minimized and mitigated and so that
15 subsequently influences my opinion that we have
16 minimized and address those concerns.

17 Q. So your position as a wildlife expert is that
18 after all the minimization and mitigation, this project
19 doesn't have wildlife concerns for this area, does it
20 pose a concern or risk to the wildlife in this area?

21 A. I wouldn't say it doesn't have a concern, which
22 is why we've mitigated. We believe we've addressed those
23 concerns as I testified through the measures we've
24 outlined.

25 Q. Right. So after the minimization and all the

1 mitigation, et cetera, it doesn't anymore have a concern
2 then?

3 **A. I think those have been addressed. Every**
4 **development has impact. So I think if the commission**
5 **starts to view the development as needing to mitigate**
6 **all impacts to zero, that's a very different regulatory**
7 **environment that we've ever interpreted your siting**
8 **regulations to be.**

9 Q. Right. No, I wouldn't say that it's -- but it's
10 a minimal impact. It will have a minimal impact to this
11 wildlife resource?

12 **A. I do believe that. We've worked very carefully**
13 **with our consulting team to understand the data, the**
14 **risk and the minimization as I testified, I believe**
15 **we've addressed those concerns.**

16 Q. Okay. Thank you very much.

17 MR. DAWSON: Commissioner Kroshus?

18 BY MR. KROSHUS CROSS EXAMINATION

19 Q. Okay. I'm gonna try and move really quickly
20 through this because a lot of great questions have been
21 asked already and a broad range of material to consider
22 when we continue to work on the case. You had mentioned
23 earlier that you have, is it three stages or three
24 times, there's an abandoned or -- and/or or not and/or,
25 either abandoned or proceed, is there like three stages

1 to that? Did I understand that correctly?

2 A. You did. So there are three pre construction
3 tiers to the wind energy guidelines that happen before
4 construction. So there's tier one which is sort of the
5 landscape scale, maybe desktop data. Stage two is
6 generally you're on the site for the first time and site
7 reconnaissance. Stage three is site specific studies, so
8 generally you're counting birds in a location over and
9 over and over again. You're looking for grouse singles
10 bars or you're looking for eagles. So those are the
11 three pre construction tiers.

12 Q. Okay. Is the public, the community, so to speak,
13 the rural population, people that live in a proposed
14 area, when do they get involved? Is it usually the third
15 tier or can be the second tier. It doesn't seem like
16 it'd be the first tier. That seems more behind the
17 scenes strategy, strategy room type proceedings.

18 A. No, I would actually say they are involved in
19 the first tier. So our iterative process of leasing land
20 is happening concurrently with looking at environmental
21 constraint so it's a standard tier one product. It's
22 called a critical issues analysis and that did occur
23 here before we signed a power purchase agreement. It's
24 where you're taking a big box in an area and you're
25 typically looking at publicly available data and saying,

1 okay, what are the constraints here? Is there a lake, is
2 there a known endangered species, is there a known
3 critical habitat? So that's what's happening at that
4 first stage. As our land team is talking to landowners,
5 they already began gathering preferences. So if someone
6 says in their first meet and greet, I will only
7 entertain a turbine on this side of my property, or I
8 won't allow you to put a road near my house. But I'm
9 fine if you put it on this side of my field, the
10 landowner feedback starts immediately at tier one and
11 precedes iteratively through all the tiers.

12 Q. Would the Game and Fish and U.S. Fish and
13 Wildlife be involved at that point in time or even aware
14 of the project?

15 A. So tier one is a highly competitively sensitive
16 phase so we're all prospecting. We're all competing. And
17 so we may go in at that stage and provide a much bigger
18 area where we're looking until we decide on what we
19 would fine and talk to them. So there's the tier one
20 discussions are what both Game and Fish and I referenced
21 happening in the fall of 2016 and those were generally
22 at the time of service asked me to come in and say tell
23 me about your pipeline in North Dakota. Show me big
24 bubbles of everywhere you're thinking of developing and
25 let's talk about that. And we did that. That's a very

1 **standard tier one interaction for us.**

2 Q. Okay. Were landowners aware -- at what point
3 were landowners aware that Game and Fish had an issue
4 and U.S. Fish and Wildlife with the site or the project
5 area?

6 A. I would say there have been some cases before in
7 the past where these issues came up and have
8 subsequently affected all cases after that. Most of our
9 landowners are very aware of those issues and the
10 sensitivity from the landowner and the agriculture
11 community, excuse me, of being included. So I feel a lot
12 of phone calls from landowners who have been angry with
13 us at my recommendations to take turbines off of native
14 prairie to put in their crop field and they want me to
15 put it back.

16 Q. I'll get to that part. Because, you know, this
17 cuts both ways to be perfectly honest. Just in terms of
18 process, I think it's one of the things that I think is
19 problematic with just how the process works. But we'll
20 get to that here pretty quickly. How many times has a
21 North Dakota site been abandoned or any site for that
22 matter. I mean, what's the -- is it half the time of a
23 proposed project is abandoned or is it maybe one out of
24 10 or is rare?

25 A. It really depends on what the constraint is. So

1 if you're following wind energy guidelines, the first
2 tier, basically, you would -- the first point to clearly
3 abandon is if the development is precluded by law in the
4 site. So if I were to be foolish enough to come to you
5 and say, I'm going to put a turbine in the badlands, you
6 know, that's not -- that's going to be precluded by law.
7 That's not allowed. So those kind of circumstances would
8 be examples.

9 Q. Yeah. I apologize. I should narrow it just a
10 little bit and you're along the lines I was thinking of,
11 just so I'm clear on what I'm looking at or asking for.
12 Abandoned environmental concerns, not because of
13 economics, not because you don't think you're going to
14 get the easements or it's just not, you know, there's
15 opposition from landowners or whatever it might be just
16 due to environmental and/or wildlife concerns?

17 A. That's one of many processes. So it's -- it's
18 probably not too common that for environmental reasons
19 only something's abandoned. Often we find there's
20 multiple issues in projects that we may either decided
21 to shrink, move or abandon and it's not just
22 environmental, so I don't -- I don't know off hand.
23 That's not a very -- it's not a very common scenario
24 that something is abandoned just for environmental
25 reasons. Often multiple things are going on in an area,

1 so we -- we need community support. That's gotta be
2 there. If there aren't willing landowners, there's no
3 place for us to lease land, so we can't get anywhere
4 with community support. We've got to have transmission
5 and there's gotta to be actual space to a build project.

6 Q. Okay. So then as a result of the concerns of the
7 project that arise, Game and Fish, U.S. Fish and
8 Wildlife, the project went from 300 megawatts down to
9 200 megawatts and let's just call it two thirds of the
10 area. The area got smaller?

11 **A. Yes.**

12 Q. That's easy. Did you ever have -- do you know if
13 the company have interconnect with 300 megawatts? Was an
14 interconnect agreement placed that was then adjusted
15 down 200 or was that not in the plan yet?

16 **A. Mr. Hart would be better able to speak to that.**
17 **That's more of a commercial question that's a little out**
18 **of my scope, unfortunately.**

19 Q. I just want to know because it's been sited
20 several times. I just want to verify that that was, in
21 fact --

22 **A. My understanding is that was the status of the**
23 **initial negotiations with our customer, but Mr. Hart**
24 **could provide you more specifics should you like them.**

25 Q. All right. Now, I'm gonna switch -- well, one

1 other thing that's -- help me with this because when it
2 comes to whooping cranes, you have -- if you look at
3 North Dakota, a map of the state and you look at where
4 all the facilities are and there's never a problem. Now,
5 it's a low percentage thing or it's, no, it's -- it's
6 not a migration corridor. So I'm wondering and I don't
7 mean to be snarky about this or sarcastic about it but
8 it looks like your migration pattern must go like this
9 across the state to get through where all the wind
10 turbines are located. I'll be honest, it doesn't make
11 any sense to me. How do you reconcile that and make me
12 feel better about the fact that nobody has a problem. So
13 apparently they never set foot in a state but you said
14 three somewhere in the project footprint or I think
15 that's what you said?

16 **A. So we have whooping cranes fly over but they**
17 **never descended in our project area. So using the**
18 **airspace overhead versus landing in the area of our**
19 **project, are different indicators of risk. So Mr. Derby**
20 **will talk about the context for understanding how**
21 **whooping crane risk is assessed and what that means in**
22 **more detail.**

23 Q. Okay. Now, I think we can go really fast through
24 the landowner part. Not that it isn't incredibly
25 important because it is. Just to verify, turbines moved

Public Hearing
3/8/2019

Page 70

1 from grasslands onto to crop land?

2 **A. That is a common action because it reduces risk**
3 **on a number of fronts.**

4 Q. Landowners are not happy about that?

5 **A. Not all of them, but I did hear a significant**
6 **amount of feedback over the reduction from 300 to 200**
7 **megawatts as well as the removal of the 55 turbines.**

8 Q. (Inaudible) pleasing Game and Fish or what we
9 feel compelled to do on it, you know, in terms of an
10 offset package and when I say compelled, because it's
11 not a requirement for the Public Service Commission to
12 come up with an offset package. Also it's not chiseled
13 in stone in terms of the formula that Game and Fish is
14 using with these offset regulations. This is the first
15 time I've seen the offset acreage of 200 and it's just
16 came down a few days ago. So the of 247.13 acres of
17 offset acreage, but that's moving turbines to try and
18 get that number as low as possible I would imagine?

19 **A. Yes. So the challenging thing about siting winds**
20 **is you're balancing a number of strengths. So this may**
21 **answer one of your earlier questions you were asking**
22 **about setbacks and why wind turbines take up different**
23 **amounts of area. I live in the state of Texas where**
24 **there's very few requirements. Some refer to Texas as**
25 **the wild, wild west and south parts of Texas are the**

1 wild, wild west. There are far fewer requirements in the
2 state of Texas to site wind farms, so the process we use
3 to site turbines is one where we start from an area on
4 the map and we derive what is called the available land.
5 The available land looks like a spiderweb, basically,
6 when you get done. You take out all the setbacks from
7 codes, from landowners, from residences, you throw in
8 all the environmental constraints and what is left or
9 sort of little points in the spiderweb that is the
10 limited space available to actually put a turbine.
11 Then and only then do we actually start putting turbines
12 on the landscape. So setbacks and all constraints really
13 drive how close turbines can be from an environmental
14 perspective. Of course then there are the commercial
15 reasons that Mr. Hart testified about you can't have
16 your turbines too close together or they wake each
17 other. That is outside of my zone of expertise, but that
18 is an important factor we consider with our other
19 functional groups and we're trying to figure out how to
20 keep landowners happy, how to minimize environmental
21 constraints and ultimately how to appear before you all
22 and be able to say that we've minimized the impacts and
23 try to have done as good a job as possible in siting our
24 projects.

25 Q. Has Game and Fish ever provided a -- well, you

1 said you've gone in -- or you go in and visit with them
2 in terms of what might be the pipeline. Have they ever
3 given you, well, here's a map on, you know, worst area
4 imaginable, best area imaginable to place a facility.
5 Have they ever given you any guidance other -- or do you
6 typically find out once the project has been proposed or
7 you're starting to think about it, is that the point?
8 There's no previous or prior guidance?

9 **A. So I would address that by saying an example map**
10 **that was low, medium and high risk was produced as part**
11 **of the one life collaborative (inaudible) wildlife**
12 **guidelines that were issued and since withdrawn. They**
13 **did have zones of low, medium and high risk and part of**
14 **our concern as a developer is that they only consider**
15 **the environmental perspective. There was no feasibility**
16 **analysis done on landowners. There was no analysis of**
17 **the policy implications for you all as a state body**
18 **making decisions on behalf of landowners. Environmental**
19 **concerns are certainly important, but so are landowner**
20 **preferences. And so we really had a problem with the way**
21 **those maps were developed. Not with the maps themselves**
22 **but with the process in which they were developed.**
23 **Should some more transparent process be used to**
24 **incorporate facts, I think a lot of applicants that**
25 **appear here before you would say having a predictable**

Public Hearing
3/8/2019

Page 73

1 rules of the road with the wildlife agencies would be a
2 dramatic improvement on the current situation as I don't
3 think either applicants for the wildlife agencies sort
4 of enjoy the situation we find ourselves in now where
5 the -- the rules are pretty unpredictable and that leads
6 to a pretty frustrating business climate for
7 development.

8 Q. That's a perfect segway then for my next
9 question. Do you believe or do you think you're enabling
10 and it's not about Game and Fish because we coordinate
11 with 27 different agencies. If you think about 27
12 different agencies and this isn't -- and I'm not saying
13 just you but to anyone in the room, just think about the
14 fact that now we're an energy producing state and you're
15 trying to balance this all out and we're talking about
16 future pipelines, we're talking about gas processing
17 plants, we're talking about a lot of different things,
18 so I don't know where this ends in terms of, hey, here's
19 a package here and then another entity has another
20 concern, well, here's an offset, et cetera, et cetera,
21 you know, where does it end? Do you have a concern that
22 you're enabling this type of behavior because here's --
23 here's the part that bugs me is I think landowners that
24 were going to get a project or maybe a turbine or
25 something else, no longer get because it's just easier

1 to go somewhere else and feel you have to go somewhere
2 else so how do you respond to that? I think I predict
3 but do you think you're enabling more of that to occur?

4 **A. I would say as an applicant, we're trying to**
5 **facilitate a path forward. I know there's been a lot of**
6 **discussion in your legislature in the past year or two**
7 **as well as this body about what is the proper way to**
8 **balance those was very legitimate landowner concerns,**
9 **community concerns and environmental concerns, how you**
10 **balance all of that. We believe that needs to happen.**
11 **What happens as an applicant is often going through the**
12 **permitting process, you may or may not have equal**
13 **opportunity to respond to things that they come as**
14 **surprises. So, for example, receiving letters at 5:00 AM**
15 **this morning. That doesn't give an applicant fair**
16 **flooding to address it in a very public permitting**
17 **process. That leads to a surprise. That leads to**
18 **frustration and unpredictability on all parts. I don't**
19 **think that's ideal. So I think as applicants, we try to**
20 **find ways to work through the situation. There was an**
21 **act of us, provide an offset package. We believe we have**
22 **some impacts that as I testified, so we volunteer to**
23 **provide that offset package because regardless of your**
24 **siting criteria, we still believe we have some impacts.**
25 **We believe when we offered that offset package, we**

1 mitigated them. So we're trying to navigate what at
2 times often feels like a minefield where there are many
3 competing interests and stakeholders and at the end of
4 the day, we're still trying to figure out how to get
5 through that process, satisfy your siting criteria, keep
6 landowners happy and maintain relationships with the
7 agencies, so it's -- it's not easy, but I would say that
8 we are trying to facilitate a path rather than enabling.

9 Q. No and I couldn't agree more. It is about
10 creating the right type of balance between the landowner
11 rights, between criteria you have to look at in the
12 siting process and impact to wildlife. I think the other
13 questions I have I think are --

14 **A. Mr. Derby.**

15 Q. You have a lot of questions coming your way.
16 Thank you.

17 MR. DAWSON: Commissioner Fedorchak.

18 BY MS. FEDORCHAK RE-CROSS EXAMINATION

19 Q. We've talked a lot about Game and Fish and U.S.
20 Fish and Wildlife. Are there other agencies that you
21 guys consult with gave input to where the project's
22 gonna be located?

23 **A. Sure. One of those other important agencies is**
24 **the State Historic Preservation Office. I testified**
25 **about our pretty extensive work with tribes and cultural**

1 resources. As you know, tribal resources are very
2 sensitive in this state and there's probably a lot
3 higher density here than some state. So we go through a
4 very involved process to understand where they are, how
5 to avoid them with both the tribes and the state
6 historic preservation office. Another example, there's
7 also a very clear thumbs up, thumbs down and there was
8 also a very clear standard what you have to do to get
9 thumbs up and thumbs down. So I think the rules there
10 are much more clear.

11 Q. But they identify avoidance areas and would be
12 able to say, no, we don't want you to put it there for
13 this reason?

14 A. They have criteria that they go through. And so
15 there's a strict set of criteria that things have to be
16 evaluated against and I think that's the piece that's
17 missing and perhaps fuzzy here. As often, I feel like
18 the commission may have different criteria than some of
19 your other consulting agencies wish you to have. And so
20 that shows up in these permitting processes and
21 unfortunately I think leads to a lot of confusion,
22 representation of information as it's different when, in
23 fact, it's not different. It's just perhaps competing
24 interests and objectives.

25 Q. Okay. But just as it relates to say, Shippo, can

Public Hearing
3/8/2019

Page 77

1 they say, or the tribal historic preservation offices or
2 whatever they in previous projects outlined areas where
3 they'd prefer you not to put turbines?

4 **A. Not before the fact. Because that's not --**

5 Q. I mean, as a process do they -- I guess what I'm
6 getting at, there is not -- it's not just Game and Fish
7 that is out there saying we don't like this spot.
8 There's other agencies that have this input as well that
9 could impact where turbines are located?

10 **A. Oh, that is definitely the case.**

11 Q. Okay.

12 **A. So with the state historic preservation office,**
13 **it's basically about if you have an impact that you've**
14 **mitigated it, you can still get a thumbs up.**

15 Q. Right.

16 **A. That's how you get the thumbs up is you avoid**
17 **it. That's what our record shows here. We avoided all of**
18 **those impacts. That's how we got the thumbs up. It's not**
19 **saying that it's not there, but we've avoided the impact**
20 **meaning we mitigated it. So they're good. Very clear.**

21 Q. And this is where I think you get -- it's --
22 it's a challenge because the landowners have the right
23 to determine what happens on their land and having other
24 agencies out there saying this can't go there or this
25 can't go there is just like offensive to people who own

Public Hearing
3/8/2019

Page 78

1 the land. But that's what -- that's kind of what the
2 siting process does. It's looking at this from a big,
3 long-term view for the state as a whole and saying we
4 want to make sure that, you know, cumulatively we're
5 trying to minimize impacts so that we're protecting our
6 cultural resources, we're protecting our environmental
7 resources, we're, you know, not destroying the soil and
8 we're leaving this place in good shape for the next
9 generation. So it is -- I'm only bringing this up
10 because I -- I know how hard it is to have and you've
11 expressed that landowners don't like being told that
12 things you would be better in the cultivated versus the
13 native prairie. And that's just an example of one agency
14 saying this is our preference and you guys saying we can
15 accommodate that and it's a balance. Some of the
16 landowners say forget it and so you've got some impacts
17 and some of the landowners said, you know, worked out an
18 agreement with them. So Shippo is a little, probably
19 less flexible when it comes to some of the historical
20 resources that might exist that you just simply have to
21 avoid, period. You cannot dig up a teepee ring or some
22 things like that even though it's pretty hard to avoid
23 those sorts of things. So it's -- it is tricky. You guys
24 have a lot to take into consideration. That's it for me.
25 Thank you.

Public Hearing
3/8/2019

Page 79

1 MR. DAWSON: The time is 3:09 and before
2 we go any further, we're going to take a 15 minute
3 break.

4 (Recess taken.)

5
6 MR. DAWSON: We're back on the record. Ms.
7 Wells is testifying. Any redirect by Ms. Furey, do you
8 have any questions for this witness?

9 MS. FUREY: No, Your Honor, not at this
10 time.

11 MR. DAWSON: Mr. Schmidt?

12 MR. SCHMIDT: No, Your Honor.

13 MR. DAWSON: Commissioners? If there are
14 no further questions, you may step down. You may call
15 your next witness.

16 MS. FUREY: Your Honor, we now call Mr.
17 Clayton Derby.

18 MR. DAWSON: You were here for my previous
19 admonitions on perjury?

20 MR. DERBY: Yes, sir.

21 MR. DAWSON: So you understand what
22 perjury is and the penalties for it?

23 MR. DERBY: Yes, sir.

24 MR. DAWSON: Understanding so, do you
25 promise or swear that the testimony that you're about to

Public Hearing
3/8/2019

Page 80

1 give will be the truth, the whole truth and nothing but
2 the truth?

3 MR. DERBY: Yes.

4 MR. DAWSON: You may begin.

5 BY MS. FUREY DIRECT EXAMINATION

6 Q. Please state your name, by who you are employed
7 and your business address?

8 A. My name is Clayton Derby. I work for Western
9 Ecosystems Technology, Inc. Or WEST. My Office address
10 is 4007 State Street, Suite 109, Bismarck, North Dakota.

11 Q. What is your position with WEST?

12 A. I am our chief services officer and senior
13 wildlife biologist.

14 Q. What is your educational background?

15 A. I received a bachelor's degree in biology from
16 Moorhead State University and a master's degree in
17 zoology and physiology from the University of Wyoming.

18 Q. What is your professional experience?

19 A. I've worked for WEST as a wildlife biologist and
20 been involved in wind-wildlife related projects for 24
21 years. During this time, I have been involved in
22 approximately 30 wind energy projects in North Dakota
23 and hundreds across the United States.

24 Q. What has your role been in the Burke projects?

25 A. I've been responsible for drafting the wildlife

1 conservation strategy for WCS, advising on wildlife and
2 habitat studies and assisting with wildlife agency
3 coordination. I've also reviewed all the wildlife and
4 native habitat technical reports and pertinent portions
5 of the applications.

6 Q. Please briefly summarize the purpose of your
7 testimony today?

8 A. I'll provide context for the wildlife and
9 habitat studies, summarize potential wildlife impacts
10 and how they relate to the literature and provide
11 information on potential impacts of the project in light
12 of my experience over the last approximately 15 years
13 working in wildlife projects in North Dakota.

14 Q. You indicated your involvement in drafting a
15 wildlife conservation strategy or the WCS. Can you
16 please describe the purpose of the WCS?

17 A. The WCS is analogous to a bird and bat
18 conservation strategy outlined in the U.S. Fish and
19 Wildlife Service wind energy guidelines. The WSC is
20 used to help Burke Wind fully evaluate risks to
21 wildlife, document efforts taken to reduce risk through
22 avoidance and minimization efforts, establish
23 post-construction efforts and outline any planned
24 offsetting measures.

25 Q. Based on your review, what did Burke Wind's

Public Hearing
3/8/2019

Page 82

1 Wildlife studies show with respect to the likelihood of
2 threatened or endangered species or critical habitat
3 occurring in the projects?

4 **A. No critical habitat is located within the**
5 **projects. No threatened or endangered species were**
6 **observed on the ground within the project during**
7 **wildlife surveys; however, one group of whooping cranes**
8 **was observed flying overhead. As I will discuss in more**
9 **detail, the projects are within the migratory corridor**
10 **for whooping cranes and observing individuals is not**
11 **unanticipated. Surveys for Dakota skipper habitat**
12 **identified potential habitat; however, all potential**
13 **habitat areas will be avoided by construction.**

14 Q. Did Burke Wind's assessment of the projects
15 include an evaluation of native prairie?

16 **A. Yes. Grassland assessments were completed at**
17 **several times, including desktop and field surveys as**
18 **the project area changed and turbine locations were**
19 **modified.**

20 Q. Can you please explain why is the evaluation of
21 native prairie included as part of the project's
22 assessment?

23 **A. Native prairie, as an ecosystem, has been**
24 **greatly reduced in North Dakota through any number of**
25 **human impacts. Understanding that native prairie occurs**

1 within the project and minimizing further impacts to
2 this ecosystem were driving reasons to include native
3 prairie in the assessment. Further, input from the U.S
4 Fish and Wildlife Service and North Dakota Game and Fish
5 Department highlighted the importance of evaluating
6 native prairie as part of the assessment.

7 Q. In a May 2018 letter from North Dakota Game and
8 Fish, the department characterized the Burke Wind
9 project area as some of the "best of the best
10 prairie-wetland habitat in North America." And in the
11 department's most recent letter -- or excuse me, I
12 believe in the services most recent letter dated March 7
13 it expressed similar concerns. Do you agree with this
14 assessment?

15 A. The Burke Wind project is similar to several
16 other existing wind energy projects in North Dakota and
17 thus it is unclear how the project should be deemed the
18 best of the best. In interpreting the term best of the
19 best, it was assumed this meant an area unique compared
20 to other areas in North Dakota or the region. For
21 instance, an area predominantly composed of
22 unfragmented native grasslands, wetlands and other
23 native landscapes would be best of the best. Based upon
24 desktop and field verification of mapped habitat types
25 within the Burke Wind project, the project area is

1 comprised of 31 percent tilled agriculture lands, 18
2 percent lands previously tilled and now planted to grass
3 or hay, 21 percent native grasslands and approximately
4 10 percent wetlands. It is currently and previously
5 tilled lands comprise approximately 50 percent of the
6 landscape within the project, the project area has been
7 previously fragmented and would not be the best of the
8 best using the definition from above.

9 We compared the Burke Wind project to several other
10 wind projects in North Dakota that are similarly located
11 within the Missouri Coteau landscape. This comparison
12 was done using the North Dakota Game and Fish
13 Department's untilled grassland data layer and the US
14 Fish and Wildlife Service National Wetland Inventory or
15 NWI data layer and indicated that the Burke Wind project
16 has similar grassland and wetland coverage percentages
17 as these other projects. Most of these projects are
18 approximately 40 percent combined wetland and grassland
19 coverage. Using these same existing datasets from the
20 North Dakota Game and Fish and U.S. Fish and Wildlife
21 Service, the Burke Wind project is approximately 42
22 percent grassland and wetland areas. Again, it is
23 unclear how the project should be deemed the best of the
24 best.

25 Q. How has Burke Wind addressed impacts to native

1 prairie?

2 **A.** As others have described, Burke Wind made
3 significant efforts to reduce the project size, move the
4 project away from larger tracts of native prairie, move
5 the project away from Lostwood National Wildlife Refuge,
6 relocated most turbines off of native prairie and
7 volunteered an offset package to help address remaining
8 impacts. The US Fish and Wildlife Service has
9 acknowledged in their March 6, 2019 letter that Burke
10 Wind has reduced the project size and contracted from
11 the eastern side of the project that harbors more
12 grasslands and applauded Burke Wind for their efforts in
13 reducing the level of impact that the wind project would
14 have on wildlife by moving turbines out of grasslands.
15 In combination, these efforts have addressed impacts to
16 native prairie within the project.

17 **Q.** Did Burke Wind evaluate the project's potential
18 impact to whooping cranes?

19 **A.** Yes.

20 **Q.** How was risk to whooping cranes assessed?

21 **A.** Risk to whooping cranes is generally assessed
22 through a review of potential whooping crane roosting
23 habitat within the project area, position within the
24 migratory corridor, availability of roosting and
25 foraging habitat, historic use of the project and

1 evidence of significant historic concentration areas.
2 Further, inference is made from existing information on
3 the lack of direct whooping crane and lack of sandhill
4 crane impacts within the migratory corridor.

5 As outlined in the whooping crane habitat review,
6 marked exhibit 27 and as described by Dr. Wells, the
7 projects are within the 75 percent migration corridor
8 and potential habitat exists within the project area.
9 Review of a report from the USGS that analyzed data from
10 an extensive sample of telemetry data from whooping
11 cranes revealed that the projects are within an area as
12 they state low use intensity. The US Fish and Wildlife
13 Service whooping crane habitat suitability model showed
14 varying levels of potential use based on habitat
15 conditions and historic use locations. The model largely
16 shows similar results of other efforts in that the
17 project contains potential whooping crane habitat. The
18 habitat suitability is similar to other areas within
19 Burke County and contains less areas of the highest
20 habitat suitability compared to other areas in the
21 region. Occurrence of whooping cranes during the spring
22 and fall migration within the entire corridor from Texas
23 through North Dakota including the project is possible
24 and numerous projects currently exist within this
25 corridor.

1 To date, no whooping cranes have been found as
2 fatalities at any wind facility. While there are only
3 500 whooping cranes it could be argued that the lack of
4 finding one is simply coincidental; however, there are
5 600,000 or more sandhill cranes that migrate the same
6 general corridor. Like whooping cranes, no sandhill
7 cranes have been found as fatalities at any wind
8 facility within the migratory corridor. A detailed study
9 that extended several years and across several wind
10 projects in North Dakota and South Dakota was done that
11 corroborated these overall flyway results. No whooping
12 or sandhill cranes were found as fatalities at these
13 wind projects.

14 Q. Do you believe that sightings of whooping cranes
15 flying over the project area change the impact analysis?

16 A. No. The incidental sighting of whooping cranes
17 flying over the project area is not unexpected given, as
18 stated above, the project is within the migratory
19 corridor, the potential habitat exists within the area
20 and uses possible during migration. Sightings could be
21 expected within the entire swath of central North Dakota
22 as this area is within the migratory corridor and most
23 areas have some amount of wetland habitat.

24 Q. In your opinion, has Burke Wind avoided and
25 minimized impacts to whooping cranes?

1 A. Based on the existing information, the project
2 is within the overall whooping crane migration corridor
3 and potential habitat exists within the project similar
4 to numerous other projects in North and South Dakota.
5 Given lack of any whooping crane or sandhill crane
6 mortalities at wind projects in the migratory corridor,
7 impacts from any projects are not anticipated. To
8 further mitigate potential risk, Burke Wind has
9 indicated it will develop and implement a voluntary
10 whooping crane identification training and curtailment
11 procedure to shut-down turbines when whooping cranes are
12 found to be within one mile of turbines. Additionally,
13 Burke Wind has indicated it will mark the entire above
14 ground transmission line following avian power line
15 interaction committee guidelines. Taken together,
16 impacts to whooping cranes from the Burke projects are
17 not anticipated.

18 Q. What does the scientific literature show
19 regarding the potential impact of wind development on
20 waterfowl?

21 A. Impacts to waterfowl could include direct
22 mortality, change in the use during migration or change
23 in use during breeding season.

24 Most historic studies have shown very limited
25 direct impacts to waterfowl from wind projects. This

1 includes work done and published from North Dakota.
2 Overall, waterfowl comprise less than three percent of
3 all fatalities, even though they often are one of the
4 most common bird groups observed during pre construction
5 surveys.

6 Similarly, most research to date has shown limited
7 to no displacement or impacts to migratory waterfowl
8 from wind project, but there are limited studies in this
9 arena. Work conducted in Iowa showed no impacts to duck
10 and goose use days at wildlife areas immediately
11 adjacent to a wind project after construction as
12 compared as before construction.

13 Based on research from North Dakota, and one of the
14 only studies to investigate this, some displacement of
15 duck pairs within proximity to operating wind turbines
16 has been documented during the breeding season. This
17 research showed that overall, 20 to 21 percent of duck
18 pairs were displaced within half a mile of turbines.

19 Q. Are these impacts expected to be significant for
20 Burke Wind?

21 A. Direct impacts due to mortality of waterfowl at
22 Burke Wind is expected to be low and similar to other
23 wind projects within North Dakota and other locations.
24 Likewise, significant changes to migrating waterfowl use
25 are not expected given information from other areas.

1 Based on the North Dakota study, displacement
2 impacts of approximately 20 or 21 percent of breeding
3 duck pairs within one half mile of turbines could be
4 expected, but it is not known if these ducks simply move
5 to another wetland and successfully breed or what
6 happens to them upon moving away from turbines.

7 Overall, given waterfowl are above long-term
8 population averages, and Burke Wind will be providing
9 voluntary offsets that consider impacts to waterfowl,
10 significant impacts to waterfowl are not anticipated.

11 Q. Did your assessment evaluate the likelihood of
12 potential impacts to bald or golden eagles from the
13 projects?

14 A. Yes.

15 Q. How is risk to eagles assessed?

16 A. Risk was assessed by using eagle use rates
17 measured throughout a 12 month period, location of the
18 use, timing of use and results of nest surveys.

19 Q. What did your assessment indicate with respect
20 to potential impacts to bald or golden eagles from the
21 wind projects?

22 A. Both bald and golden eagles were observed during
23 surveys. For bald eagles, use observed during
24 standardized surveys was limited to the spring and fall
25 migration periods with incidental observations during

1 the winter and none observed during the summer. Looking
2 at the total survey effort for the original project
3 boundary, most use was east of the current 200 megawatt
4 project. For golden eagles, use was observed during
5 standardized surveys only during the spring migration
6 with incidental observations during the fall and winter
7 and no birds observed during the summer. No nests for
8 either species were located within the projects or
9 survey buffers around the projects. Based on use data
10 and lack of eagle nests within the projects and
11 vicinity, overall eagle use appears to be limited to
12 migration periods and winter. Most eagle use was east of
13 and outside the current project area.

14 Q. In your opinion, is Burke Wind expected to have
15 a significant adverse impact in eagles?

16 A. No, impacts to eagles would be expected to be
17 low and similar to other projects in North Dakota.

18 Q. In the letter dated May 2018, North Dakota Game
19 and Fish suggested that Burke Wind project may have
20 population level impacts on sharp-tailed grouse. Do you
21 agree with this assessment?

22 A. Based on the timing of the letter, this
23 statement was before the reduction in overall project
24 size and shifting of the project to the west, away from
25 several larger grassland areas and the national wildlife

1 refuge. Additional turbine shifts have resulted in all
2 turbines being now located more than one half mile away
3 from all leks identified during surveys, which are
4 appropriate measures per a recent letter from the U.S.
5 Fish and Wildlife Service. Reduction of the project and
6 buffering all leks by one half mile have reduced
7 potential impacts on grouse and their leks.

8 Q. In general, do you think the reduction in size
9 and increased distance from Lostwood National Wildlife
10 Refuge are effective ways to avoid and minimize
11 potential impacts to the refuge?

12 A. Yes, the modifications resulted in the closest
13 turbine being over seven miles away from Lostwood Refuge
14 boundary. There are no known defined setbacks from
15 refuge boundaries to turbines. However, in evaluating
16 the sufficiency of the current distance form the nearest
17 turbine to Lostwood, we considered U.S. Fish and
18 Wildlife Service and other recommendations regarding
19 setbacks from whooping crane critical habitat as a
20 maximum example of a recommended distance to avoid and
21 minimize impacts. To be clear, Lostwood is not a
22 designated critical habitat but we used this designation
23 as a maximum consideration for wildlife related issues.
24 In the U.S. Fish and Wildlife Service and Western Area
25 Power Administrations Programmatic EIS, it is stated

1 that projects should be sited more than five miles from
2 designated critical whooping crane habitat to
3 sufficiently avoid and minimize impacts to the critical
4 habitat and whooping cranes. Given the size and habitat
5 usage of whooping cranes, it is assumed this setback
6 distance will also sufficiently avoid and minimize
7 impacts to other birds and wildlife. In summary, the
8 reduction in project size and increased distance have
9 effectively avoided and minimized reduction in project
10 size and increased distance have effectively avoided and
11 minimized potential impacts to Lostwood National
12 Wildlife Refuge and the March 6, 2019 U.S. Fish and
13 Wildlife Service letter applauded Burke Wind for their
14 actions to reduce the level of impact on Wildlife by
15 reducing the project from 300 to 200 megawatts and
16 moving the wind project boundary further from Lostwood.

17 Q. Thank you. I am going to draw your attention to
18 the North Dakota Game and Fish letter dated May 22nd and
19 these are just some follow-up questions in response to
20 some of the topics that were previously addressed. This
21 letter is located appendix c to the amended wind
22 application which is marked as exhibit four. If you
23 could please reference the second page?

24 A. Yes.

25 Q. Okay. There is a statement in this letter that

Public Hearing
3/8/2019

Page 94

1 the project would result in a reduction of nearly 3,300
2 breeding ducks pairs. In your opinion, is this a
3 accurate assessments based on the date of the letter?

4 **A. Yeah. The date as you noted was May 22, 2018**
5 **that would have been prior to the reduction from 300**
6 **megawatts to 200 megawatts so that number would be**
7 **incorrect.**

8 Q. Has the department reassessed the analysis in
9 this respect?

10 **A. Yes. It's actually the U.S. Fish and Wildlife**
11 **Service updated this number in their March 6, 2019 which**
12 **is exhibit 45.**

13 Q. Okay. So the prior statement was made by --

14 **A. North Dakota Game and Fish.**

15 Q. On May 22, 2018 and then the U.S. Fish and
16 Wildlife Service updated this statement and is dated --

17 **A. March 6, 2019 and that number that they report**
18 **is 1,000 breeding pairs.**

19 Q. So what does that number reflect?

20 **A. That number reflects the estimate following a**
21 **study conducted by others that I referenced and others**
22 **reference where 20 to 21 percent of those waterfowl --**
23 **breeding waterfowl are displaced within one half mile of**
24 **turbines. So that 1,000ish is that 20 percent.**

25 Q. So is that expected fatalities?

1 **A. No. As I mentioned in my testimony, that means**
2 **that ducks moved away from turbines and where those**
3 **ducks -- the ducks were not marked. It is not known if**
4 **they went to different wetland, if they successfully**
5 **bred when they arrived there or what happened. The study**
6 **indicates they moved.**

7 Q. Thank you. I'm gonna draw your attention to the
8 same binder to figure 17. This was the figure that Mr.
9 Schmidt had previously referenced. This is the whooping
10 crane migration corridor map.

11 **A. Which appendix?**

12 Q. It's figure 17 in that binder.

13 **A. Oh, okay. Yes.**

14 Q. So looking at this map is the project boundary
15 at the -- at the top of the map shaded in black. Okay.
16 Can you please put into context this map and what this
17 means? Is there a 75 percent chance that if you could
18 expect whooping cranes to stopover or more, I guess,
19 more specifically, there is green slashes that are
20 marked over the project boundary. These green slashes
21 show that there is a low intensity. What does that mean?
22 Can you kind of just put that into context for us within
23 the scope of this map?

24 **A. Sure. There's several things going on in this**
25 **map that were discussed earlier. As you noted, the 75%,**

Public Hearing
3/8/2019

Page 96

1 80%, and 85, 90 and 95%. What that means is within the
2 75% swath, which extends from Canada down through Texas
3 to the Gulf coast, this is not limited to just North
4 Dakota. It's an area that is approximately a hundred
5 miles wide from the Canadian border to the Texas Gulf
6 Coast. That 75 percent of historic occurrences that have
7 occurred and cumulatively, if you go up to the next
8 band, you have 75 and you add another 5%, so you get 80%
9 and you go up to the next band, you have the 75, 80 and
10 and 85% up to the 95th percent band, which means 95% of
11 historic observations have occurred within this whole
12 area of North Dakota, which goes through central Dicky
13 County, over Central Adams County, so it's a wide area
14 through North Dakota. Now, the green box and the pink
15 box and the orange box, according to my eyesight anyway,
16 the project is located within an area of green shading,
17 which is identified as low intensity. These blocks are
18 from a telemetry study that was conducted by the USC
19 over a number of years where they had at one time or
20 another approximately a quarter of the population of
21 whooping cranes marked and they followed them for
22 several migrations of the telemetry units remote
23 downloads so really precise locations during the
24 migratory periods. So low intensity means that one of
25 those marked birds landed in these squares are 16 square

1 kilometer area, 16 by 16 kilometers. One -- a whooping
2 crane landed somewhere inside of that lot, one to four
3 times per location was retrieved, extended or core
4 intensity, extended core use, core intensity just means
5 more and more were there. So this area means somewhere
6 within this 16 mile, 16 square kilometer area a whooping
7 crane landed or it was there for a few times, you know,
8 multiple days, low intensity compared to some of the
9 others where there's multiple use days by multiple
10 cranes which are shown by the different colors.

11 Q. So it wouldn't be an appropriate conclusion then
12 based on your testimony to look at this map and then
13 infer that the likelihood of whooping cranes occurring
14 in this area would be high?

15 A. Not compared to other areas within the 75%
16 corridor according to this map, no.

17 Q. Thank you. I'm actually gonna follow up on a
18 point of clarification from Dr. Wells' testimony
19 previously and have you provide some comment. There was
20 discussion regarding North Dakota species of
21 conservation priority.

22 A. Yes.

23 Q. And in the context of how those seasons apply to
24 the commission's siting criteria. So specifically, the
25 criteria kind of designated certain exclusion areas, one

1 of the exclusion areas is designated as areas where an
2 animal or plant species that are unique or rare to this
3 state would be irreversibly damaged. So breaking that
4 down, our species that are included on the North Dakota
5 Game and Fish list of conservation priority, first of
6 all, rare or unique?

7 **A. Some certainly are. They have listed species on**
8 **that same list, but that list is over a hundred**
9 **individual species in length with some species being**
10 **actually quite common on the list. For instance,**
11 **sharp-tailed grouse are included on the list. The state**
12 **of North Dakota harvests between 75 and a hundred**
13 **thousand sharp-tailed grouse annually, so one could**
14 **argue they're not rare. The next question is, are they**
15 **unique? The occurrence, well, North Dakota has a healthy**
16 **population of sharp-tailed grouse. They're not unique to**
17 **North Dakota. They occur in Canada. They occur in the**
18 **surrounding states. They occur in a broad geographic**
19 **swath. So including the full list, maybe overly**
20 **inclusive for the species as you identified them.**

21 Q. What would be the result if all over a hundred
22 species were to be, I guess, labeled as unique or rare?

23 **A. Yeah. Essentially the entire state would fall**
24 **within an exclusion zone because you could find at least**
25 **one of those species anywhere in North Dakota.**

Public Hearing
3/8/2019

Page 99

1 Q. Does North Dakota have any state designated
2 threatened or endangered species?

3 **A. Not state designation, no.**

4 Q. And even for argument's sake, even assuming that
5 North Dakota species of conservation priority were
6 unique or rare, would impacts to these species, do you
7 believe impact from the projects would result in
8 irreversible damage?

9 **A. Yeah, that'd be another term that would,
10 perhaps, be definition attitude in my opinion and one
11 way to define that is population level effects,
12 irreversibly damaged and I don't believe the project has
13 potential to resolve the population level effects for
14 grass numbers or the state's -- the species that are on
15 the list.**

16 Q. Thank you. Do you believe that Burke Wind has
17 appropriately avoided, minimized and mitigated potential
18 impacts to wildlife and native habitats associated with
19 the projects?

20 **A. Yes. Through project changes and siting of
21 turbines, the overall impacts have been appropriately
22 avoided, minimized and mitigated.**

23 Q. Thank you.

24 MR. DAWSON: Mr. Schmidt.

25

Public Hearing
3/8/2019

Page 100

1 BY MR. SCHMIDT CROSS EXAMINATION

2 Q. Good afternoon. I have a couple questions for
3 you. I'll keep it very short and sweet though. You did
4 indicate that there was going to be a whooping crane
5 identification plan put in place, is that correct?

6 A. Yes, sir.

7 Q. Okay, so how is that going to work?

8 A. It will further reduce the risk to the whooping
9 cranes, so you know, you start at a point of low
10 potential risk to whooping cranes period, so the actual
11 plan then is, my understanding is proprietary. It's not
12 my document. My understanding is is that there's a
13 training that's conducted for all contractors and
14 operation personnel on site.

15 Q. Okay. And I guess the reason I'm asking is
16 because you put me in front of four birds and say pick
17 out the whooping crane, I'm probably not going to be
18 able to do it and I'm assuming people who are
19 constructing these turbines might not know that either.
20 So I'm just kinda curious as to how the company's going
21 to educate people to say, okay, if you see this, do
22 something and what is that something?

23 A. Right. Yeah. So there is a short identification
24 training, certainly not to make one a technologists, but
25 whooping cranes are five feet tall, white birds. So

1 they're fairly conspicuous when on the landscape, but
2 they do get confused with other white birds like
3 pelicans, or swans, those kinds of things, so there is
4 some amount of identification training that goes on and
5 then also what to do with that information. So if the
6 contractor sees or the operations personnel sees what
7 they believe is a whooping crane, a reporting process,
8 and then the operations manager responds by shutting
9 down turbines within one mile of whooping crane until
10 the crane departs.

11 Q. There's been a lot of discussion about
12 mitigating risk that's happened today. Well, my question
13 is what -- what risk level did we start at with respect
14 to this project and I'm talking about wildlife, what
15 risk level were we at when this project was initially
16 constructed?

17 A. It hasn't been constructed.

18 Q. Right, excuse me, proposed?

19 A. I was not involved until late last year. So I
20 don't know the official, you know, I can tell you what I
21 do is I look at all projects. You need to look at the
22 actual onsite information and get over the optical and
23 the emotional reaction. I mean, I've been involved in
24 projects outside of North Dakota that optically and
25 emotionally were very, I would have said, very high

1 risk. And when we started looking at them and working
2 with the state and wildlife agencies, we all agreed,
3 wow, this -- this isn't a high risk site because we
4 actually started looking at it. So, yeah, how it was
5 identified in 2016 or '17, I was not part of those
6 discussions. So I cannot comment on for this project.

7 Q. Okay. So were you involved in this project prior
8 to it becoming a 200 megawatt project?

9 A. About that time I think I became involved in
10 about October of last year and I think that's when it
11 changed.

12 Q. Okay. So I guess the purpose of my initial
13 question is we're mitigating risks but what are we
14 mitigating from? What's our starting point? You can have
15 a huge problem and mitigate it down to a big problem and
16 that doesn't do us a lot of good or we could have a big
17 problem and mitigate it down to a small problem or no
18 problem at all. So I'm looking for a baseline?

19 A. Right. You know, I think the mitigation and I
20 think Dr. Wells did a nice job of explaining this. It's
21 not just starting with mitigation. That's kind of the --
22 that's the end. That's the last piece that's done, you
23 know, through moving turbines off of grass, working with
24 landowners to find appropriate siting locations,
25 reducing the project size. All those things come first

1 and should be considered in the overall risk reduction
2 or the assessment for any project. And if there are
3 still residual impacts, that was the term that Dr. Wells
4 you used, one thing you can consider is doing some sort
5 of habitat offsets, you know, through an offset plan to
6 ameliorate those as well.

7 Q. Can you just explain a little bit on this direct
8 versus indirect impact thing? This seems to have become
9 this abstract concept of high talking about it.

10 A. It is a little bit abstract. You're right. So
11 direct is pretty clear. Probably a couple of types of
12 direct impacts. One could be a dead animal or a dead
13 bird and this isn't just a bird, it could be anything. A
14 dead deer on a road is a direct impact. It could also be
15 done in the landscape where you take and turn a
16 sunflower -- a piece of a sunflower field or a wheat
17 field or a native prairie from that habitat type to a
18 paved or grounded ditch road or in this case, you know,
19 capped road where there is a fiber layer with aggregate
20 over the top of it. So that's a direct impact, very
21 measurable. You go out there and it's 18 feet wide or 20
22 feet wide and this long, very quantitative, measurable
23 or dead birds, there's one, there's one so you can
24 quantify very, very easily and get your hands on.
25 Indirect is -- are those things that are not as easily

1 measured. And that's what we really don't have a lot of
2 studies on it. I've actually been involved in a lot of
3 studies trying to measure indirect impacts and it's very
4 difficult. You're -- but that's where an animal can be
5 (inaudible) telemetry units and, you know, but in this
6 case it's been done on ducks and grassland birds where
7 we look at did they move and that's what really gets --
8 that's what gets investigated. Did they move? Are they
9 here as we expect them to be here? This area, all things
10 being equal, remove the oil well, remove the turbine, we
11 expected a hundred of this species in this area. There's
12 80, that's the 20 percent reduction. So that's kind of
13 that -- that's the essence of it. We don't -- the study
14 never == studies done to date do not identify what
15 happened to those 20. We just know there's 80 there now.

16 Q. Okay. So you told me that a direct impact is
17 something that's quantifiable?

18 A. Largely.

19 Q. But an indirect impact could be a reduction in
20 number of birds in one place to another. Wouldn't that
21 be quantifiable?

22 A. Yeah, that's true. I mean, you could put a
23 number on it, but it isn't physical. Right. You can't go
24 up and touch it. You know, I just -- it's getting late
25 in the afternoon so I'm getting a little surly, you

1 know, I always think it's explain it to grandma test,
2 can I explain it to my grandmother so she understands it
3 and if I take my grandmother out and we stand next to a
4 turbine and it's was like, wow, there's -- there's four
5 bottles but if that turbine wasn't there, there'd be
6 five bottles. Well, you know, she, you know, there's
7 four there. What happened? You know, so that's why it
8 gets a little squishy. Okay.

9 Q. Okay. I was just looking for a little more
10 clarification. I appreciate that and I don't have
11 anymore questions. Thank you.

12 MR. DAWSON: Mr. Lien?

13 MR. LIEN: I have no questions.

14 MR. DAWSON: Commissioner Fedorchak.

15 BY MS. FEDORCHAK CROSS EXAMINATION

16 Q. Since you were talking about impacts, from the
17 standpoint of assessing the long-term impacts, does it
18 -- does it really matter? I mean, they're looking at the
19 long term impacts of resources?

20 A. Again, the issue comes in to what happens to
21 those birds? Do they -- and I do think there needs to be
22 some address to the long-term impacts in North Dakota
23 from everything, not just and. That's where I would
24 start. And wind is part of that landscape but so is
25 everything else out there. And as a biologist, I think

1 we can have those discussions, but part of this is if
2 you're looking at what happened, what are the indirect
3 impacts of wind on wildlife and birds, we need to ask
4 the question, birds that move, where did they go and
5 what do they do when they get there? In other words, did
6 they fly over a hill and successfully nest. So we know
7 we have some very nice studies, design and implement
8 studies in North Dakota did indicate 50, 55% of
9 grassland birds move way from turbines up to 300 meters.
10 Not disputing that. The question I have is where did
11 those birds go? Did they move over half a mile and
12 successfully nest? We don't know that as a group, no
13 one's been able to investigate that and there can be
14 conjecture that goes -- within the study, there is
15 indication that the control areas -- areas away from
16 turbines have been reduced overall. Not due to turbines,
17 but 30 to 60 percent of that area is 30 to 60% less
18 birds in those control areas, so it wasn't just turbines
19 reducing birds on the landscape. There was no turbines
20 near those spots, but they still went down 30 to 60% in
21 bird use so yes, you know, that's another example of an
22 impact. But you could say, well there's plenty of room
23 then for these extra birds to go nest half a mile away.
24 Do they do that? I don't know. No one's looked at that.
25 These birds are not marked, so --

1 Q. When it comes to the mitigation payments, how do
2 mitigation payments offset the impacts?

3 A. Great question. Typically, and I'm going to talk
4 in general, not here, you know, what -- this is my
5 understanding that NextEra is still working through this
6 with folks, but in general, what is done is any sort of
7 offset payments, mitigation payments are contributed or
8 to qualifying and the group needs to meet the needs of
9 Many parties, needs to work with landowners, needs to
10 work within the community, needs to help wildlife in
11 this instance. So you could take the -- the dollars and
12 add value to land, restore land that is now marginal
13 crop land back to maybe higher functioning pasture land
14 that is grazed or you take pasture land now and you can
15 cross it and increase standing grass cover and get more
16 birds nesting there. So those things all take, and, you
17 know, people are trying to make a living out there. So
18 it is a way to bring dollars to farmers, ranchers as
19 well as benefiting wildlife appropriately.

20 Q. And are you aware that those payments go to
21 projects in this area?

22 A. (Inaudible.)

23 Q. When you were talking about the whooping cranes,
24 you said that this area doesn't provide any greater risk
25 to whooping cranes than any other area within that 75

1 percent and that's somehow then, what the conclusion to
2 sew this project is there isn't a problem with the
3 whooping cranes?

4 A. Right. But, again, using the sandhill cranes as
5 a surrogate, given their numbers -- I actually just read
6 a paper from the Fish and Wildlife service where they
7 said sandhill cranes are in effect in this area, but
8 because there's -- there's about 500 whooping cranes in
9 the population right now. So could one of them nest
10 somewhere in Oklahoma or in South Dakota, North Dakota?
11 Potentially. But there's been extensive studies done. My
12 company, we did an extensive study in North Dakota and
13 South Dakota where we looked at five wind farms within
14 the migratory corridor for three years. We had over a
15 hundred thousands turbine searches done during the
16 migration period, about 14,000 hours of survey completed
17 and we didn't find a single sandhill crane of which
18 there are 600,000. Meaning, flocks of sandhill cranes.
19 We even documented whooping crane use in those project
20 areas and we were also doing -- doing curtailments and
21 we would curtail turbines during that time. So I've
22 taken together, along with the other general fatality
23 studies done throughout the corridor and the lack of
24 sandhill crane mortality in the migratory corridor,
25 assuming they're an effective surrogate for whooping

Public Hearing
3/8/2019

Page 109

1 **cranes, risks to cranes as a whole is very low.**

2 Q. What you're saying is, despite the fact that
3 this is the main place they fly, it doesn't appear to be
4 a problem anywhere in the corridor?

5 **A. Not to date, correct.**

6 Q. So back to the mitigation and the letters from
7 Game and Fish and Fish and Wildlife, you know, they've
8 been consultation for a number of years on this and it
9 doesn't really seem like they've changed their position
10 a whole lot. The letter of March 6th from U.S. Fish and
11 Wildlife says our primary recommendation has been to
12 avoid developing of the project at the current proposed
13 location and then it goes into its secondary
14 recommendation which is to, you know, do more mitigation
15 and Game and Fish says, as we relayed from the start,
16 the department believe that this project was ill planned
17 in its site selection relative to natural resources and
18 consequently will have substantial impacts in native,
19 wildlife and their habitats. These are the most recent
20 letters just from March 7th. So why aren't the efforts
21 of the company to mitigate, offer payments, et cetera
22 addressing these agencies' concerns and changing their
23 opinion on this?

24 **A. Right. That is a bit of a conundrum and part of**
25 **the reason they don't use the terms I believe in the**

1 letter I read this morning at 5:00 AM so I don't have it
2 committed to memory and the other one yesterday, but
3 there was a term being used the best of the best and I
4 think that's still implied a lot in these letter. And
5 trying to investigate what that really means. What does
6 that mean and how do we put that into context for this
7 project area, for this geographic area? A lot of in
8 discussions over the years, and I've been working with
9 the agencies for 15 years and one of their main concerns
10 has been minimize fragmentation of unfragmented
11 grassland. Move off of native grasslands. And I think
12 the original project boundary included a lot more
13 grasslands was really close to Lostwood National
14 Wildlife Refuge and if you look in the larger geographic
15 area around here, there's some areas that I think the
16 Game and Fish in one of the letters talks about large
17 areas of four square miles with no roads. Four sections
18 that don't have roads and you can consider that
19 unfragmented. Inside this project, so I started to look
20 at that. What does -- what is this project? So I said I
21 want to remove my emotions, look at the issue, look at
22 the project, look at the optics. And 50% of tilled or
23 previously tilled the entire project area, so does that
24 mean this project is unfragmented? Probably not. You
25 know, if the mirror is 50% broken, it's been fragmented.

1 Where are the turbines? Off of the grasslands for the
2 most part. There's five or seven depending on how you
3 want to slice it. Seven on untilled grassland slash
4 untilled native hay land of the entire 76. So to me, I
5 think there's some -- there's some hangover from the
6 original project, the original location near Lostwood
7 and I think that's where I tried to just really cut down
8 things that were existing, not to use data from the
9 siting because I wanted to compare it to others sites
10 that are on the Coteau in similar landscapes and there's
11 six or eight of them and they all have about 40 percent
12 grass wetland combination. One has much higher, 85
13 percent grass, native grass wetland combination. So is
14 it different? I don't know.

15 Q. Which one -- what projects are those?

16 A. I don't even know if these names are correct
17 because we use the USG -- there's a data layer out there
18 from the USGS that has all the turbines in the entire
19 country on it. So we just went to that site, these
20 aren't necessarily our projects but the Minot Wind Site,
21 there's one next to Minot, the Tonka, Dakota Wind, I
22 think Rugby is also, that's not a Coteau but it's in a
23 similar wetland grassland mix. I don't have the list in
24 front of me but there were seven or eight. And, again,
25 that's existing data, wasn't our data.

Public Hearing
3/8/2019

Page 112

1 Q. Right. And those that you listed are some of the
2 earliest sites so Game and Fish are just seeing like --
3 (inaudible.)

4 **A. Potentially. Just speculating.**

5 Q. Which would make some sense as to why these --
6 their input is a little different now than it probably
7 was. But, let's see. I think that's it for me. I'll let
8 you talk to Brian. Thank you.

9 MR. DAWSON: Commissioner Kroshus.

10 BY MR. KROSHUS CROSS EXAMINATION

11 Q. Did you say earlier you've worked on 30 projects
12 in North Dakota?

13 **A. Approximately right around there. 32, 31, but**
14 **not all of them built.**

15 Q. That was my next question. What percentage were
16 not built or ballpark number?

17 **A. 15 or 20 percent.**

18 Q. Okay. So the majority of them were built. Okay.
19 And then you came on board, you work for NextEra. You
20 came on board October, 2018?

21 **A. It was last fall. I don't know the date. I'd**
22 **have to look it.**

23 Q. Was that to help address some direct --

24 **A. My Primary focus was to help the WCS to compile**
25 **the field data, tier one, two, three data and file it.**

1 Q. I should have prefaced you're in luck, I've got
2 my second wind, so I don't have any grouchy questions.

3 **A. I thought you were deleting all your grouchy**
4 **questions.**

5 Q. That was this morning, so we're good. But you
6 had said one thing and you were saying, I think it was
7 U.S. Fish and Wildlife applies NextEra, but really I
8 think that's misleading when -- I already went down this
9 path, but basically, as well as Brian brought this up as
10 well, and they're saying, okay, it's a little bit
11 better, but it's still not good. I don't think you
12 should build the facility. Do you agree with that?

13 **A. I think overall, yes. I mean, I think they**
14 **recognize significant efforts taken by NextEra but they**
15 **still have concerns based on overall data.**

16 Q. Okay. Help me out the what happens when -- okay,
17 so peak migration period for waterfowl is fall through
18 --

19 **A. Spring and fall.**

20 Q. Okay. Right. So what happens when it's fall, how
21 do the birds readjusted? And because I hunted waterfowl
22 a few times and (inaudible) does that create more of a
23 problem?

24 **A. I think it probably does, yes.**

25 Q. Date in terms of what --

1 A. No, because quite frankly, there's such a low
2 sample size, like I said, less than three percent of all
3 fatalities have been recorded have been waterfowl so to
4 study causation or the timing was such a small sample
5 size. It's pretty difficult to say, you know, when did
6 that bird actually die.

7 Q. And I think that goes back to -- I think a lot
8 of times in these cases I've been asked after the fact,
9 I hear people asking, well, why did you ask about
10 whooping cranes, why aren't you asking about grouse leks
11 and things like that. And the short answer is we have
12 to. It's part of the siting process. So we leave no
13 stone unturned obviously in the questioning. How often
14 are bird mortality counts done?

15 A. During like the year of post construction like
16 how frequent is the sampling done? It's very variable.
17 Not the sentence in the world, but it's quite variable
18 depending on the topic. Whenever we're designing
19 studies, we ask the question or the what is the
20 objective? So if I'm doing a study in North Dakota for
21 general birds and bats, our sampling frequency might be
22 once a week or once every two weeks. If we're doing a
23 study that the focus is only large birds like waterfowl,
24 I might actually space that out more to two or four
25 weeks because they remain on the landscape longer. If

1 I'm doing a bat study in Iowa, it may be every day or
2 every other day or every third day. So really it's
3 driven by the purpose of the -- of your post
4 construction monitoring plan. So in North Dakota every
5 week or every two weeks is pretty standard.

6 Q. It seems like a lot of this and not so much the
7 mortality count, but just it seems like a lot of this is
8 really is an exact science? In terms of impact and going
9 back to the impact that determines whether to place the
10 project overall --

11 **A. Yes.**

12 Q. So how do we know if your recommendations are --
13 okay. I'm trying to think of the best way to phrase this
14 stuff. (Inaudible.) It seems like there are a lot of
15 variables.

16 **A. I believe that there are.**

17 Q. Okay. Last question on the hundred or right
18 around hundred species, you considered species of
19 conservation priority?

20 **A. Correct.**

21 Q. Do you know over the course of time has that
22 list grown exponentially? Has it been at a hundred for a
23 long time? Have any species have been added as of
24 recently?

25 **A. Right. It was established, I kind of forget the**

1 year, approximately, I believe, it was in the mid 90s,
2 and the first list that came out was a hundred of the --
3 state 100 species. Some species have gone off and some
4 have gone on so I think we're up to 105. So obviously
5 some of them have been added to go beyond the original
6 100 but it hasn't varied wildly with species coming off
7 and coming on.

8 Q. And sharp-tailed grouse are on the list?

9 A. Yes.

10 Q. Is that geographically -- is it by geography or
11 statewide? That one was lost -- I'll admit that.

12 A. Are you a conservationist or --

13 Q. We'll just leave it at that. No other questions.

14 MR. DAWSON: Ms. Furey?

15 MS. FUREY: Nothing additional, Your
16 Honor.

17 MR. DAWSON: Mr. Schmidt?

18 MR. SCHMIDT: I have no further questions.

19 MR. DAWSON: Well if there are no further
20 questions, you may step down. Ms. Furey, do you have any
21 further witnesses or any witnesses to recall?

22 MS. FUREY: Your Honor, can we just have a
23 brief five minute break?

24 MR. DAWSON: Certainly.

25 (Recess taken.)

Public Hearing
3/8/2019

Page 117

1 MR. DAWSON: The time is 4:40 and we're
2 back on the record. Ms. Furey, do you have any further
3 witnesses?

4 MS. FUREY: No, Your Honor. We don't.

5 MR. DAWSON: Do you have anyone to call,
6 Mr. Schmidt?

7 MR. SCHMIDT: No, Your Honor.

8 MR. DAWSON: It was brought to my
9 attention that there may be a telephone witness?

10 MR. SCHMIDT: He's not going to testify.
11 (This concludes the witness testimony.)

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REPORTER'S CERTIFICATE

I, Kayla A. Richmond, a general shorthand reporter, 51 Broadway, Fargo, North Dakota, do hereby certify that the foregoing one hundred nineteen (119) pages of typewritten material constitute a full, true and correct transcript of my original stenotype notes, as they purport to contain, of the hearing reported by me at the time and place hereinbefore mentioned?

Kayla A. Richmond
51 Broadway, Suite 130
Fargo, North Dakota 58102

Dated this 23rd day of April, 2019.

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Public Hearing

3/8/2019

Page 119

A				
abandon 43:6,9 67:3,21	add 21:19 25:4 53:25 54:13 96:8 107:12	afternoon 5:6,8 100:2 104:25	47:16	answered 43:8
abandoned 43:5 45:21 63:24,25 66:21,23 67:12 67:19,24	added 115:23 116:5	agencies 22:18 22:23 24:19 25:5,6 27:6 28:9 33:5 40:20 44:13,17 46:5 49:15 57:14 73:1,3 73:11,12 75:7 75:20,23 76:19 77:8,24 102:2 110:9	airline 48:11	anticipated 88:7 88:17 90:10
able 17:18 36:15 68:16 71:22 76:12 100:18 106:13	addendum 37:2	agency's 27:13	airspace 69:18	anybody 61:5
absence 50:15 62:12	adding 34:5	aggregate 103:19	allow 57:12 65:8	anymore 63:1 105:11
absolutely 14:14	additional 10:8 10:15 16:7 28:20 30:16 43:12 51:19 92:1 116:15	ago 42:17 52:1 70:16	allowed 67:7	anyway 15:1 96:15
abstract 103:9 103:10	Additionally 88:12	agree 5:25 6:25 7:15 9:12,15 11:16 12:2,6 12:14,25 13:9 13:14 14:9,11 19:17 22:24 23:19 25:10 36:6 46:12 51:3 75:9 83:13 91:21 113:12	alternative 59:9	apart 14:8
accommodate 15:20 78:15	address 22:1 27:15,17 31:13 34:17,22 41:14 46:7,14 50:19 52:17 53:5,8 62:4,16 72:9 74:16 80:7,9 85:7 105:22 112:23	agreed 102:2	amazing 61:16	apologies 10:18 10:23
accurate 9:3 13:4 23:21 29:2,3 31:1 32:23 36:5 40:24 43:25 94:3	addressed 28:16 59:6 62:22 63:3,15 84:25 85:15 93:20	agreement 64:23 68:14 78:18	ameliorate 103:6	apologize 67:9
accurately 46:2	addressing 47:2 109:22	agricultural 36:4 53:17	America 21:25 83:10	apparently 69:13
acknowledged 85:9	adjacent 89:11	agriculture 66:10 84:1	amount 8:3 18:19 19:18 28:7 49:4 51:21,24 53:21 70:6 87:23 101:4	appear 12:8 21:5 71:21 72:25 109:3
acre 17:25	adjusted 68:14	aid 23:25	amounts 70:23	appeared 59:1
acreage 70:15 70:17	Administratio... 92:25	air 29:8,11	analogous 81:17	appears 12:11 13:10 26:24 91:11
acres 7:8,14,19 8:2,13 9:2 70:16	ADMINISTR... 2:3		analogy 45:2 48:10	appendix 26:4,6 93:21 95:11
act 6:9 56:20 74:21	admit 116:11		analysis 64:22 72:16,16 87:15 94:8	applauded 85:12 93:13
action 33:4 55:24 70:2	admonitions 79:19		analyzed 86:9	applicant 74:4 74:11,15
actions 93:14	advancement 8:25		and/or 63:24,24 67:16 118:21	applicant's 60:5
actual 29:17 37:11 47:11 68:5 100:10 101:22	adverse 45:22 45:23 91:15		angry 66:12	applicants 72:24 73:3 74:19
Adams 96:13	advising 81:1		animal 27:24 28:5,10,11 55:2,18 98:2 103:12 104:4	application 1:6 1:10 7:6 8:5,22 14:8,17 15:11 15:13,22 16:9 17:19,24 20:4 20:24 23:10 40:13 54:23 55:9 56:21 93:22
			animals 7:3 56:12	applications 81:5
			annually 98:13	applies 113:7
			answer 13:17 50:20 51:13 55:9 59:12 61:20 70:21 114:11	apply 6:13 97:23

Public Hearing

3/8/2019

Page 120

118:20 appreciate 47:19 105:10 apprentices 18:9 approaching 36:16 appropriate 41:24 92:4 97:11 102:24 appropriately 61:24 99:17,21 107:19 approximately 7:8,13,19 16:10 80:22 81:12 84:3,5 84:18,21 90:2 96:4,20 112:13 116:1 April 29:1 118:17 area 5:10 6:18 11:1,3,7 12:11 13:7 19:17 20:17,21 21:8 21:11,14,24 23:24 24:22 25:10,12 26:13 27:2 29:6,25 30:12,21 32:5 33:9,15,16,19 33:21 34:11 37:13 46:9,20 47:6 48:25 49:11,12,17 56:11,12,25 58:19,21 59:6 61:15 62:19,20 64:14,24 65:18 66:5 67:25 68:10,10 69:17 69:18 70:23	71:3 72:3,4 82:18 83:9,19 83:21,25 84:6 85:23 86:8,11 87:15,17,19,22 91:13 92:24 96:4,12,13,16 97:1,5,6,14 104:9,11 106:17 107:21 107:24,25 108:7 110:7,7 110:15,23 areas 11:10,11 25:16 38:8,9 52:7 54:24 55:1 58:6,18 58:18 76:11 77:2 82:13 83:20 84:22 86:1,18,19,20 87:23 89:10,25 91:25 97:15,25 98:1,1 106:15 106:15,18 108:20 110:15 110:17 arena 89:9 argue 98:14 argued 87:3 argument's 99:4 Armstrong 3:4 Army 19:22 21:19 arrived 95:5 ascending 40:2 aside 44:1 asked 18:13 51:8 59:8 63:21 65:22 114:8 asking 10:17 13:11 26:8,10	30:13,22,23 41:13 47:23 55:21 56:10 67:11 70:21 100:15 114:9 114:10 assessed 37:18 69:21 85:20,21 90:15,16 assessing 105:17 assessment 23:6 36:22 37:5,11 41:16 82:14,22 83:3,6,14 90:11,19 91:21 103:2 assessments 82:16 94:3 assisting 81:2 associated 99:18 assumed 83:19 93:5 assuming 50:25 99:4 100:18 108:25 assumptions 40:23 attempt 42:2 attempted 31:18 31:20 attention 93:17 95:7 117:9 attitude 99:10 Attorney 2:15 2:23 3:10 attract 29:9 attributable 40:16 August 15:11 16:10 authority 19:22 60:17,21 availability	85:24 available 27:6 44:7 45:9,14 64:25 71:4,5 71:10 Avenue 2:11,19 3:6 average 30:25 averages 90:8 avian 34:3 88:14 aviation 39:15 39:17,21 avoid 31:16 38:10 40:7 48:2 52:23 53:1,13,16 61:22 76:5 77:16 78:21,22 92:10,20 93:3 93:6 109:12 avoidance 32:1 46:21 51:15 52:15,20,21 58:18,19,21 59:6 62:11 76:11 81:22 avoided 6:18 33:20 45:24 51:18,21 52:2 52:2,19 54:8 59:4 62:14 77:17,19 82:13 87:24 93:9,10 99:17,22 avoiding 15:20 18:1,6 avoids 51:12 aware 6:21 19:3 21:23 31:15,18 31:23 39:8 56:8 58:9 61:5 65:13 66:2,3,9 107:20	B bachelor's 80:15 back 5:1 9:5 11:20 12:1 18:18 26:11 42:10 43:14 54:20 60:2 66:15 79:6 107:13 109:6 114:7 115:9 117:2 background 80:14 bad 44:17 badlands 67:5 balance 18:14 73:15 74:8,10 75:10 78:15 balanced 17:25 balancing 70:20 bald 90:12,20,22 90:23 ballpark 112:16 balls 39:17,21 band 96:8,9,10 bar 29:6,10,13 bars 29:15 64:10 based 7:13,18 16:8 21:17,19 24:18 27:13 40:24 57:5 58:8,24 81:25 83:23 86:14 88:1 89:13 90:1 91:9,22 94:3 97:12 113:15 baseline 102:18 basic 28:23 basically 29:13 67:2 71:5 77:13 113:9 basis 21:9 22:15
---	---	--	--	--

Public Hearing

3/8/2019

Page 121

38:5	40:15 41:19	100:25 101:2	breeding 23:3	81:20,25 82:14
bat 40:15 81:17	43:22 50:21	103:23 104:6	23:23 25:11	83:8,15,25
115:1	68:16 69:12	104:20 105:21	26:24 27:1	84:9,15,21,25
bats 114:21	78:12 113:11	106:3,4,9,11	29:12 32:19	85:2,9,12,17
bear 42:3	beyond 51:18	106:18,19,23	49:12 88:23	86:19 87:24
becoming 102:8	116:5	106:25 107:16	89:16 90:2	88:8,13,16
began 65:5	bid 39:12 48:9	113:21 114:21	94:2,18,23	89:20,22 90:8
behalf 72:18	big 47:2,17 48:5	114:23	Brett 31:24	91:14,19 93:13
behavior 28:1	51:10 62:8	Bismarck 2:12	Brian 2:7 3:3	99:16
48:10,20 73:22	64:24 65:23	2:20 3:7 80:10	49:9 112:8	business 73:6
behavioral 48:1	78:2 102:15,16	bit 19:17 22:19	113:9	80:7
believe 8:24	bigger 42:7	28:24 48:6,19	brief 116:23	butterfly 6:5
9:18 13:3	65:17	67:10 103:7,10	briefly 81:6	
14:24 15:23	biggest 46:6	109:24 113:10	bring 107:18	C
19:10 20:11,24	47:21 48:2	black 33:17	bringing 78:9	c 1:12,14 2:1 3:1
22:20 23:21	52:9	95:15	broad 21:17	25:20 26:4,6
26:18 29:18,20	binder 95:8,12	blaring 48:15	55:24 63:21	93:21
30:12 31:1	biologist 29:5	blocks 96:17	98:18	calculated 27:17
32:3,16 33:6	42:3 80:13,19	board 112:19,20	broadening 57:5	38:25
34:17 45:24	105:25	bodies 19:20,20	broadly 57:18	calculation 8:17
46:2,14 53:6	biology 80:15	20:1	Broadway 2:11	calculations
55:21 57:3	bird 7:2 22:25	body 72:17 74:7	2:19 3:6 118:5	27:17 28:8,16
59:5,11 61:15	23:3 24:16	books 15:24	118:14	call 47:13 68:9
61:23 62:6,8	28:4 32:24	boots 24:9	broken 11:2,11	79:14,16 117:5
62:22 63:12,14	33:1 34:5	border 96:5	110:25	called 27:8
73:9 74:10,21	39:14,23,24	bottles 105:5,6	brought 113:9	39:15 42:12
74:24,25 83:12	40:5,7,9,10,15	bottom 9:22	117:8	52:20 55:12
87:14 99:7,12	48:23,25 50:6	28:12 33:23	Bschmidt@s...	64:22 71:4
99:16 101:7	54:13,14,15	boundaries 51:1	3:9	calls 66:12
109:16,25	81:17 89:4	51:2 92:15	bubbles 65:24	Canada 96:2
115:16 116:1	103:13,13	boundary 30:19	buffer 29:25	98:17
benefiting	106:21 114:6	91:3 92:14	30:15,20,21	Canadian 96:5
107:19	114:14	93:16 95:14,20	buffering 92:6	capped 103:19
best 21:25,25	birds 23:23	110:12	buffers 91:9	care 51:5
27:6 29:11	24:11,13,22	Bowbells 1:21	bugs 73:23	carefully 63:12
45:9 49:11,12	28:13 32:19	box 64:24 96:14	build 68:5	case 1:4,8 24:20
49:17,17 61:1	34:20 35:16,20	96:15,15	113:12	41:1,3 42:5
72:4 83:9,9,18	36:14 39:22	break 79:3	built 112:14,16	43:11 53:3
83:18,18,19,23	40:13 47:14,15	116:23	112:18	63:22 77:10
83:23 84:7,8	47:20 48:8,20	breaking 98:3	bunch 51:12	103:18 104:6
84:23,24 106:6	49:5 50:7 51:2	bred 95:5	Burke 1:4,5,5,8	cases 17:13 59:3
110:3,3 115:13	64:8 91:7 93:7	breed 32:21	1:9,9 2:15,23	66:6,8 114:8
better 38:1	96:25 100:16	49:1 90:5	40:16 80:24	Casey 2:9 41:11
				categories 57:25

Public Hearing

3/8/2019

Page 122

<p>category 56:17 58:21 cattails 36:18 causation 114:4 cause 39:4 49:18 caused 30:17 Center 1:9 central 87:21 96:12,13 certain 48:18 49:12 97:25 certainly 6:2 60:4 72:19 98:7 100:24 116:24 CERTIFICA... 118:2 CERTIFICA... 118:19 certify 118:5 CERTIFYING 118:22 cetera 63:1 73:20,20 109:21 Cfurey@crow... 2:14 challenge 52:9 77:22 challenging 70:19 chance 40:4 95:17 change 8:9,18 48:25 87:15 88:22,22 changed 8:19 82:18 102:11 109:9 changes 8:8,20 89:24 99:20 changing 40:5 109:22</p>	<p>characterizati... 22:16 43:21 49:11,16,20 62:2 characterize 8:11 44:3 characterized 83:8 characterizes 22:17 check 7:17 17:2 chief 80:12 chiseled 70:12 choices 43:9 45:21 Chuck 26:19 circles 15:8 circumstances 53:1 67:7 citation 31:19 citations 28:9 cited 49:3 citing 57:7,21 cladding 39:8 clarification 97:18 105:10 clarified 13:21 clarify 59:8 clarity 17:6 classes 11:12,14 21:5,17 classification 9:7 classifications 21:16,18 classified 9:13 11:10 Clayton 4:7 28:20 41:16 79:17 80:8 clear 35:6 39:3 67:11 76:7,8 76:10 77:20</p>	<p>92:21 103:11 clearly 67:2 climate 73:6 close 45:8 71:13 71:16 110:13 closest 92:12 coast 96:3,6 codes 71:7 codified 56:9 coding 15:5 coincidental 87:4 collaborative 72:11 collection 8:8 collections 8:21 collision 39:25 54:15 colors 97:10 column 8:2 9:8 21:8 combination 85:15 111:12 111:13 combined 84:18 come 11:20 44:17 65:22 67:4 70:12 74:13 102:25 comes 10:19 22:15 47:14 54:22 69:2 78:19 105:20 107:1 coming 75:15 116:6,7 comment 41:25 97:19 102:6 commercial 60:21 61:3 68:17 71:14 commission 1:2 2:5 3:10 16:4</p>	<p>18:20 57:20 62:3 63:4 70:11 76:18 commission's 97:24 commissioner 2:6,7 41:9 42:4 58:14 63:17 75:17 105:14 112:9 Commissioners 79:13 commit 19:5,7 committed 19:2 40:19 110:2 committee 88:15 common 5:18 67:18,23 70:2 89:4 98:10 community 64:12 66:11 68:1,4 74:9 107:10 compacts 48:7 companies 44:12,14 company 45:16 46:7,13 51:8 56:6,14 60:17 68:13 108:12 109:21 company's 42:16 43:15 44:23 100:20 comparable 21:21 45:13 compare 111:9 compared 62:2 83:19 84:9 86:20 89:12 97:8,15 comparison</p>	<p>84:11 compelled 70:9 70:10 competing 42:6 65:16 75:3 76:23 competitively 65:15 compile 112:24 completed 82:16 108:16 completely 53:1 compliment 50:16 comport 18:6 composed 83:21 comprise 84:5 89:2 comprised 84:1 computer 44:7 concentrate 29:11 concentrated 24:22 35:22 concentration 33:18 86:1 concept 103:9 concern 32:21 32:24 33:1,13 33:19 34:14 43:7 44:20,21 52:10,14 62:7 62:20,21 63:1 72:14 73:20,21 concerned 24:19 concerns 6:22 18:16 42:10,17 43:15 44:10,24 45:17 46:8,14 47:3 51:12 52:12,17 53:8 60:25 61:8,9 62:16,19,23</p>
---	--	---	--	--

Public Hearing

3/8/2019

Page 123

63:15 67:12,16 68:6 72:19 74:8,9,9 83:13 109:22 110:9 113:15 concludes 117:11 concluding 15:4 conclusion 31:10 97:11 108:1 conclusions 22:22 concurrently 64:20 conditions 86:15 conduct 34:3 40:14 conducted 23:3 23:6,17,23 24:1,4 28:25 34:1 89:9 94:21 96:18 100:13 confirmed 30:12 conflict 53:22 confused 101:2 confusion 76:21 conjecture 106:14 consequently 109:18 conservation 32:9,11,24 33:1 55:12,12 55:16 56:23,24 57:2 58:15 81:1,15,18 97:21 98:5 99:5 115:19 conservationist 116:12 consider 38:16	43:6 63:21 71:18 72:14 90:9 103:4 110:18 consideration 78:24 92:23 considered 10:8 10:16 36:8 92:17 103:1 115:18 considering 55:4 consistent 32:1 55:6 59:2 61:24 consolidated 14:17 conspicuous 101:1 constituent 21:13 constitute 118:7 constraint 64:21 66:25 constraints 18:1 18:15 65:1 71:8,12,21 construct 47:11 constructed 101:16,17 constructing 100:19 construction 40:14,22 43:4 54:1 64:2,4,11 82:13 89:4,11 89:12 114:15 115:4 consult 75:21 consultation 47:5 49:15 109:8 consultations	49:13 57:9 consulting 46:5 63:13 76:19 CONT'D 3:1 contain 118:9 containing 30:12 contains 86:17 86:19 contention 7:1 contest 34:16 context 8:11 69:20 81:8 95:16,22 97:23 110:6 continue 63:22 continues 8:7 contracted 85:10 contractor 101:6 contractors 100:13 contributed 43:24 61:22 107:7 control 106:15 106:18 118:21 conundrum 109:24 conversations 58:24 59:22 conversion 21:9 convertor 39:23 convertors 39:12,14 coordinate 73:10 coordination 81:3 cop 5:18 core 19:21 35:17 35:21 97:3,4,4	core's 19:24 corner 12:23 33:17,23 corporate 59:17 59:20 Corps 19:22 21:20 51:4 correct 5:11,12 5:15 6:5,6,19 6:20 9:20,21 10:21,23 12:4 12:8,17,20 13:13 14:1,5,6 14:10 15:4,7 15:10 20:14,15 23:4,5,8,14,16 23:20 30:25 31:4 32:7,8,18 35:8 36:1,2 37:14 38:17,22 39:5,6 40:11 47:7 51:1 59:7 100:5 109:5 111:16 115:20 118:7 correctly 30:24 64:1 correspondence 22:16 corridor 35:7,24 69:6 82:9 85:24 86:4,7 86:22,25 87:6 87:8,19,22 88:2,6 95:10 97:16 108:14 108:23,24 109:4 corroborated 87:11 Coteau 84:11 111:10,22 counsel 57:6	58:8,25 count 24:10 115:7 counter 18:10 counting 24:13 64:8 country 111:19 counts 114:14 county 1:9,9 45:6 86:19 96:13,13 couple 6:11 18:8 19:19 27:4 28:23 54:11 100:2 103:11 course 40:5 45:2 71:14 115:21 COURT 118:22 cover 11:14 21:3 21:5,17 41:12 107:15 coverage 84:16 84:19 covered 20:22 58:1 covering 19:17 crane 35:7 36:3 36:9,13 37:4 37:11 38:16 39:4,24 53:25 54:10 69:21 85:22 86:3,4,5 86:13,17 88:2 88:5,5,10 92:19 93:2 95:10 97:2,7 100:4,17 101:7 101:9,10 108:17,19,24 cranes 35:2,25 36:11,20 38:9 39:7,11 40:6 51:20,23 52:12
--	---	---	--	---

Public Hearing

3/8/2019

Page 124

54:17 55:3 69:2,16 82:7 82:10 85:18,20 85:21 86:11,21 87:1,3,5,6,7,12 87:14,16,25 88:11,16 93:4 93:5 95:18 96:21 97:10,13 100:9,10,25 107:23,25 108:3,4,7,8,18 109:1,1 114:10 create 113:22 creating 75:10 criteria 21:22 36:10 37:20 39:22 51:14,16 53:9 54:21,21 74:24 75:5,11 76:14,15,18 97:24,25 critical 55:1,8 64:22 65:3 82:2,4 92:19 92:22 93:2,3 crop 11:2,13 12:14 18:17 66:14 70:1 107:13 cropland 11:11 12:6,9,19 crops 18:13 cross 4:5,9 5:3,5 32:19 42:1 63:18 100:1 105:15 107:15 112:10 Crowley 2:10,18 cultivated 78:12 cultural 75:25 78:6 cumulatively	78:4 96:7 curious 44:22 100:20 current 7:13,19 16:9,12,21 33:12 60:3 73:2 91:3,13 92:16 109:12 currently 15:16 84:4 86:24 curtail 108:21 curtailment 88:10 curtailments 108:20 customer 68:23 cut 111:7 cuts 66:17 <hr/> D D 1:14 4:1 Dakota 1:1,21 2:12,20 3:7 6:1 6:4,21,25 16:14,17,19 17:1,3 21:23 22:4,12 25:8 25:15,21 26:2 26:22 27:3 31:5,9 33:2 34:6,8,13 40:25 46:3 49:3 65:23 66:21 69:3 80:10,22 81:13 82:11,24 83:4 83:7,16,20 84:10,12,20 86:23 87:10,10 87:21 88:4 89:1,13,23 90:1 91:17,18 93:18 94:14 96:4,12,14	97:20 98:4,12 98:15,17,25 99:1,5 101:24 105:22 106:8 108:10,10,12 108:13 111:21 112:12 114:20 115:4 118:5,15 damage 99:8 damaged 56:14 98:3 99:12 dark 11:6 12:4 dash 21:2 data 22:18,21,23 32:3 34:10 43:10,19 44:8 45:1 49:19,22 49:23 63:13 64:5,25 84:13 84:15 86:9,10 91:9 111:8,17 111:25,25 112:25,25 113:15 datasets 84:19 date 25:23 87:1 89:6 94:3,4 104:14 109:5 112:21 113:25 dated 26:8,10 83:12 91:18 93:18 94:16 118:17 DAWSON 2:3 5:1 33:22,25 41:6,9 63:17 75:17 79:1,6 79:11,13,18,21 79:24 80:4 99:24 105:12 105:14 112:9 116:14,17,19 116:24 117:1,5	117:8 day 8:23 28:15 48:23 75:4 115:1,2,2 118:17 days 23:19 70:16 89:10 97:8,9 dead 103:12,12 103:14,23 deal 17:5 51:10 death 39:4 decide 29:10 65:18 decided 43:17 44:21 45:16 67:20 decision 17:15 17:23 25:15 38:14 42:25 43:1,5,20 60:21,23 61:4 decisions 26:17 60:22 72:18 declining 7:2 33:6 deemed 83:17 84:23 deer 103:14 define 50:3 56:23 99:11 defined 26:25 57:18 92:14 definitely 36:24 77:10 definition 45:14 55:11 56:3,4 57:11,16 84:8 99:10 degree 53:2 80:15,16 delay 41:12 deleting 113:3	delivered 19:8 density 76:3 department 25:8 33:2 46:3 83:5,8 94:8 109:16 department's 83:11 84:13 departs 101:10 depending 111:2 114:18 depends 66:25 depicted 15:5 20:17 depicting 37:19 Derby 4:7 22:1 22:5,19 28:20 31:13 32:4 34:17,22 41:16 41:20 49:25 50:18 58:15 62:1 69:19 75:14 79:17,20 79:23 80:3,8 derive 71:4 derived 36:22 descended 69:17 descending 40:2 describe 81:16 described 5:13 38:4 53:5,8 61:17 85:2 86:6 describes 10:13 design 7:13,19 8:7 9:1 16:9,11 106:7 designated 55:8 92:22 93:2 97:25 98:1 99:1 designation 92:22 99:3
--	---	---	--	--

Public Hearing

3/8/2019

Page 125

<p>designing 114:18</p> <p>desktop 24:12 37:4,10 38:5 44:6,9 45:1,15 64:5 82:17 83:24</p> <p>despite 109:2</p> <p>destroying 78:7</p> <p>detail 22:19 34:18 58:16 69:22 82:9</p> <p>detailed 43:12 87:8</p> <p>detect 25:2</p> <p>detectable 34:21</p> <p>detecting 35:20</p> <p>detections 33:11 35:14,18</p> <p>determine 51:6 56:16 77:23</p> <p>determined 20:1</p> <p>determines 115:9</p> <p>determining 52:9</p> <p>develop 88:9</p> <p>developed 11:11 72:21,22</p> <p>developer 72:14</p> <p>developing 44:16 65:24 109:12</p> <p>development 38:9 42:18 60:22 61:3 63:4,5 67:3 73:7 88:19</p> <p>Dicky 96:12</p> <p>die 114:6</p> <p>dies 28:11</p> <p>differ 16:23 45:19</p>	<p>difference 8:25</p> <p>different 19:20 21:3,15,17,20 21:22 22:18,21 22:22 24:16,17 24:21 25:3 28:5 38:24 45:12 48:24 57:11,16 58:4 58:11 63:6 69:19 70:22 73:11,12,17 76:18,22,23 95:4 97:10 111:14 112:6</p> <p>differentiate 19:19</p> <p>difficult 104:4 114:5</p> <p>dig 78:21</p> <p>digging 47:12,25</p> <p>direct 4:8 5:9 9:18 27:11,11 27:12 28:3,3,6 42:2 47:13,23 47:25 48:6 49:6 50:8,11 50:15 52:4,5,6 54:11 80:5 86:3 88:21,25 89:21 103:7,11 103:12,14,20 104:16 112:23 118:21</p> <p>directed 41:20</p> <p>DIRECTION 118:21</p> <p>directly 13:1 22:1 27:9 57:10 62:4</p> <p>Director 59:24</p> <p>disagree 34:16 43:21 49:16</p>	<p>disagreement 22:15 57:13 58:10</p> <p>discuss 82:8</p> <p>discussed 24:8 95:25</p> <p>discussion 49:25 74:6 97:20 101:11</p> <p>discussions 49:21 57:5 65:20 102:6 106:1 110:8</p> <p>displaced 25:17 89:18 94:23</p> <p>displacement 89:7,14 90:1</p> <p>dispute 22:3,11 27:2 31:9 34:9 42:8</p> <p>disputed 49:10</p> <p>disputing 106:10</p> <p>distance 92:9,16 92:20 93:6,8 93:10</p> <p>distant 14:3</p> <p>distinction 20:4 58:2</p> <p>distinctions 50:25 51:6</p> <p>disturbance 6:22 8:4,16</p> <p>ditch 103:18</p> <p>dive 22:19</p> <p>diverter 39:15 40:3 54:13,14</p> <p>diverters 40:7,9</p> <p>division 36:12</p> <p>document 16:21 30:2 33:4 81:21 100:12</p> <p>documented</p>	<p>39:7 89:16 108:19</p> <p>dog 59:16</p> <p>doing 40:22 44:6 61:14 103:4 108:20,20 114:20,22 115:1</p> <p>dollars 107:11 107:18</p> <p>door 28:14 48:23,25</p> <p>double 8:4,4</p> <p>doubling 8:10</p> <p>doubt 49:6</p> <p>downloads 96:23</p> <p>Dr 41:10,13,21 41:25 86:6 97:18 102:20 103:3</p> <p>drafted 9:19,21</p> <p>drafting 25:5 80:25 81:14</p> <p>dramatic 73:2</p> <p>draw 45:2 93:17 95:7</p> <p>drive 71:13</p> <p>driven 115:3</p> <p>driving 39:18 83:2</p> <p>duck 25:16 26:24 27:9,12 27:23 51:3 89:9,15,17 90:3</p> <p>ducks 25:11,13 26:25 27:19 51:5 52:12 90:4 94:2 95:2 95:3,3 104:6</p> <p>due 53:21 67:16 89:21 106:16</p>	<p>duration 16:11</p> <p>dying 39:7</p> <hr/> <p style="text-align: center;">E</p> <hr/> <p>E 1:14,14 2:1,1 3:1,1 4:1</p> <p>eagle 25:1 32:6 32:9,11,13,14 32:14 90:16 91:10,11,12</p> <p>eagles 25:3 64:10 90:12,15 90:20,22,23 91:4,15,16</p> <p>earlier 13:24 49:9 55:23 63:23 70:21 95:25 112:11</p> <p>earliest 112:2</p> <p>early 17:15 42:18 43:20 44:10,13,14,23 44:23 46:6,17 47:5,5 49:14 60:1,9</p> <p>easements 67:14</p> <p>easier 73:25</p> <p>easily 42:15 103:24,25</p> <p>east 3:6 11:17 11:22 13:1,6 91:3,12</p> <p>eastern 85:11</p> <p>easy 68:12 75:7</p> <p>echo 24:1</p> <p>economics 67:13</p> <p>ecosystem 47:18 82:23 83:2</p> <p>Ecosystems 80:9</p> <p>edge 53:19</p> <p>edges 35:19,22</p> <p>educate 100:21</p> <p>education 61:14</p> <p>educational</p>
--	---	---	--	---

80:14 effect 34:21 46:15 48:18 61:24 108:7 effective 40:8 92:10 108:25 effectively 93:9 93:10 effects 34:19,20 99:11,13 effort 91:2 efforts 10:1 35:15 81:21,22 81:23 85:3,12 85:15 86:16 109:20 113:14 eight 21:11,13 38:11,11,15 53:14 111:11 111:24 EIS 92:25 either 20:22 40:1 48:14 56:18 57:9,21 58:12,23 63:25 67:20 73:3 91:8 100:19 elevated 29:8 eliminate 37:20 50:5,6 eliminated 50:11 52:11 54:9 emergent 21:4 emotional 101:23 emotionally 101:25 emotions 110:21 employed 80:6 enabling 73:9,22 74:3 75:8 encompasses	5:11 32:22 endangered 6:9 35:25 55:2,5 56:1,19 57:24 58:5 65:2 82:2 82:5 99:2 ended 8:16 ends 73:18 energy 1:9 2:15 2:23 42:13,20 42:25 43:3 45:20,20 46:1 64:3 67:1 73:14 80:22 81:19 83:16 engage 44:13 Engineering 8:7 Engineers 19:23 51:4 Engineers' 21:20 enjoy 73:4 entertain 65:7 entire 37:13 39:12 86:22 87:21 88:13 98:23 110:23 111:4,18 entities 22:21 entity 73:19 environment 63:7 environmental 18:1,14 59:15 59:17,19 60:18 60:25 61:6 64:20 67:12,16 67:18,22,24 71:8,13,20 72:15,18 74:9 78:6 equal 36:20 74:12 104:10	equally 14:3 equipment 54:1 error 8:17 especially 22:22 48:8 essence 104:13 essentially 5:14 40:9 98:23 establish 81:22 established 25:12 115:25 estimate 25:16 94:20 et 63:1 73:20,20 109:21 evaluate 27:4 43:9,12 81:20 85:17 90:11 evaluated 76:16 evaluating 83:5 92:15 evaluation 82:15,20 event 22:24 evidence 86:1 exact 115:8 exactly 8:15 exam 4:5,8,9 examination 5:3 5:5 42:1 63:18 75:18 80:5 100:1 105:15 112:10 examine 13:16 example 24:4,20 27:10,23 28:1 28:2 32:21 33:15 43:7 45:10 52:24 53:11 72:9 74:14 76:6 78:13 92:20 106:21	examples 54:4 67:8 exceedingly 50:16 exception 11:15 excerpt 26:20 exclusion 51:15 54:24 56:11,25 58:6,18 97:25 98:1,24 excuse 8:13 26:3 66:11 83:11 101:18 exercise 38:25 39:1 exhibit 7:5,11 7:22,24 9:5,16 9:23 10:3,4,5,6 10:25 11:12,25 14:16,19 15:25 19:11,12 20:6 20:7,8,9 23:11 25:20 26:6 28:17 29:17,20 29:20 30:4 33:22 34:24 36:25 37:1,2,3 86:6 93:22 94:12 exhibits 8:23 exist 56:7 78:20 86:24 existing 83:16 84:19 86:2 88:1 111:8,25 exists 34:8 86:8 87:19 88:3 expansion 57:4 expect 34:21 40:25 41:1 95:18 104:9 expected 87:21 89:19,22,25	90:4 91:14,16 94:25 104:11 experience 18:11 61:13 80:18 81:12 expert 32:5 59:15 62:5,17 expertise 71:17 explain 35:9 37:25 82:20 103:7 105:1,2 explaining 38:1 102:20 exponentially 115:22 expressed 6:22 24:19 44:24 61:8 78:11 83:13 extended 87:9 97:3,4 extends 96:2 extensive 75:25 86:10 108:11 108:12 extra 106:23 extrapolated 31:22 eyes 50:20 eyesight 96:15
F				
facilitate 74:5 75:8 facilities 69:4 facility 72:4 87:2,8 113:12 fact 14:7 40:6 42:8 61:8 68:21 69:12 73:14 76:23 77:4 109:2 114:8 factor 71:18				

Public Hearing

3/8/2019

Page 127

factored 28:8	41:9,10,21	financial 17:17	85:8 86:12	46:22 67:1
factors 18:2	42:1 58:14	46:20	91:19 92:5,17	88:14 94:20
facts 42:5,6	75:17,18	find 20:25 24:24	92:24 93:12,18	foolish 67:4
72:24	105:14,15	25:24 56:6	94:10,14,15	foot 69:13
fair 5:16 18:19	feedback 18:19	67:19 72:6	98:5 108:6	footprint 69:14
28:7 35:7 36:7	65:10 70:6	73:4 74:20	109:7,7,10,15	foraging 85:25
74:15	feel 43:25 45:22	98:24 102:24	110:16 112:2	foregoing 118:6
fairly 19:18	45:23 66:11	108:17	113:7	118:19
36:13 101:1	69:12 70:9	finding 87:4	Fish's 6:25	forests 24:24
fall 31:7,11	74:1 76:17	findings 40:17	31:10 46:4	41:18
56:16 65:21	feels 75:2	fine 65:9,19	49:10	forget 46:9
86:22 90:24	feet 14:8,8	finish 37:25	five 10:1,7,9,14	78:16 115:25
91:6 98:23	100:25 103:21	first 9:23 13:18	10:20,22 46:19	form 92:16
112:21 113:17	103:22	19:11 26:12	93:1 100:25	formula 70:13
113:19,20	felt 61:12	37:21 43:7	105:6 108:13	formulating
fallen 14:25	females 29:9,10	45:1 46:16,17	111:2 116:23	19:2,5,7
familiar 25:14	fewer 71:1	48:5 49:15	Fleck 2:10,18	forward 74:5
26:17,20 31:12	fiber 103:19	52:21 53:12	flexibility 14:11	found 33:9,14
42:20	field 36:12,15	64:6,16,19	flexible 78:19	36:17 39:3
familiarity	53:19,19 65:9	65:4,6 67:1,2	flight 39:15 40:3	87:1,7,12
43:23	66:14 82:17	70:14 98:5	flip 37:17 38:8	88:12
far 41:18 53:24	83:24 103:16	102:25 116:2	38:11	four 7:5,11 12:7
71:1	103:17 112:25	Fish 6:21 18:23	flocks 108:18	20:6,8,9 25:20
Fargo 118:5,15	figure 10:25	21:24 22:4,12	flooding 74:16	26:6 29:21
farmers 107:18	11:4,5,25	24:5 25:8,9,15	fly 55:4 69:16	34:24 93:22
farmland 54:25	14:17,20,22,25	25:21 26:2,22	106:6 109:3	97:2 100:16
farms 71:2	15:2,3,6 16:6	27:3 31:5	flyers 36:14	105:4,7 110:17
108:13	16:21 20:5,8,8	32:10,12 33:2	flying 82:8	110:17 114:24
fast 69:23	20:11,18 21:12	34:6,13,16	87:15,17	fourth 30:8
fatalities 87:2,7	34:25 35:2,5	35:15 42:9,9	flyway 87:11	fragmentation
87:12 89:3	36:25 37:3,6,7	42:21,23 43:22	foals 31:21	110:10
94:25 114:3	37:17,21 38:11	44:1,2 49:10	focus 5:17 11:21	fragmented
fatality 108:22	38:15,18,21,21	49:14 55:11	34:4 38:20	84:7 110:25
favorite 29:5	45:3 71:19	56:23 59:22,22	112:24 114:23	frankly 114:1
feasibility 72:15	75:4 95:8,8,12	59:25 60:10,11	focused 51:16	frequency 33:12
February 8:24	figured 38:5	61:17,18 65:12	focuses 11:14	114:21
19:11	figures 37:22	65:12,20 66:3	focusing 42:7	frequent 114:16
federal 6:8	figuring 36:23	66:4 68:7,7	folders 54:11	front 58:12
19:22 56:1	file 112:25	70:8,13 71:25	folks 107:6	100:16 111:24
federally 6:4,7,8	filed 8:22,24	73:10 75:19,20	follow 97:17	fronts 70:3
36:2 55:8	final 23:16	77:6 81:18	follow-up 93:19	frustrated 18:12
56:19,19	59:14	83:4,4,8 84:12	followed 96:21	frustrating 60:7
Fedorchak 2:6	finalized 49:23	84:14,20,20	following 8:15	73:6

Public Hearing

3/8/2019

frustration 74:18	93:18 94:14	38:2 45:4,7,18	grandma 105:1	103:18
full 98:19 118:7	98:5 109:7,15	48:22,22 53:25	grandmother 105:2,3	group 59:18,20 61:6 82:7
fully 81:20	110:16 112:2	54:20 60:19	graphics 38:12	106:12 107:8
functional 71:19	gas 73:16	65:17 69:8,23	grass 84:2 99:14	groups 71:19 89:4
functioning 107:13	gather 29:7 43:19	72:1 74:1,1	102:23 107:15	grouse 14:23 24:3,20,24
fundamental 57:13	gathering 65:5	76:3,14 77:24	111:12,13,13	28:22 29:1,7,7
Furey 2:9 4:8	general 13:3	77:25 79:2	grassland 8:1	29:22,24 30:8
15:25 28:19	33:7 34:11	96:7,9 103:21	9:8,14 10:2,7	30:24 31:6,10
41:15,24 58:14	36:11 87:6	104:23 106:4	10:22 11:2,2	31:16,25 32:3
79:7,9,16 80:5	92:8 107:4,6	106:11,23	11:11,13 13:1	64:9 91:20
116:14,15,20	108:22 114:21	107:20 116:5	13:9 33:13,19	92:7 98:11,13
116:22 117:2,4	118:4	goal 18:6	82:16 84:13,16	98:16 114:10 116:8
further 34:23	generalizing 51:10	goes 16:12 96:12	84:18,22 91:25	grown 115:22
41:5 43:6 59:8	generally 14:10	101:4 106:14	104:6 106:9	guess 8:15 13:23 16:1,21 17:5
79:2,14 83:1,3	33:3 34:20	109:13 114:7	110:11 111:3	18:4 24:8,16
86:2 88:8	36:7 39:4,6	going 16:15 18:8	111:23	27:24 37:9
93:16 100:8	44:8 64:6,8	24:24 37:25	grasslands 5:22	40:16 44:21
116:18,19,21	65:21 85:21	40:17,24 41:12	10:15 11:17	77:5 95:18
117:2	generation 78:9	42:7 43:18	34:20 70:1	98:22 100:15 102:12
future 73:16	geographic 98:18 110:7,14	45:7,17 47:24	83:22 84:3	guidance 72:5,8
fuzzy 76:17	geographically 116:10	52:7 61:16,18	85:12,14	guideline 55:17
	geography 116:10	62:6 67:5,6,13	110:11,13	guidelines 42:13 42:21 43:1,3
	geopolitical 51:2	67:25 73:24	111:1	45:20,20 46:1
G	getting 12:1	74:11 79:2	grazed 107:14	64:3 67:1
G 1:14	22:22 60:2	93:17 95:24	great 36:14	72:12 81:19
Game 6:21,25	77:6 104:24,25	100:4,7,17,20	63:20 107:3	88:15
21:23 22:4,12	giant 39:20	107:3 115:8	greater 107:24	Gulf 96:3,5
25:8,15,21	GIS 38:25	117:10	greatly 82:24	guys 42:15 43:16 44:20
26:2,22 27:3	give 20:25 74:15	golden 90:12,20	green 11:6,6	49:18 75:21
31:5,10 33:2	80:1	90:22 91:4	12:4 15:5	78:14,23
34:6,13,16	given 72:3,5	gonna 20:25	20:19 21:13	
42:9,21 43:22	87:17 88:5	63:19 68:25	95:19,20 96:14	
44:1 46:3	89:25 90:7	75:22 95:7	96:16	
49:10,14 55:11	93:4 108:5	97:17	greens 38:4	
56:22 59:22,25	go 6:11,15 12:21	good 5:6,8 49:2	greet 65:6	
60:11 61:18	13:20,20,21	60:18 71:23	grouchy 113:2,3	
65:12,20 66:3	15:16 20:25	77:20 78:8	ground 23:22	
68:7 70:8,13	26:15 37:19	100:2 102:16	24:9 25:11	
71:25 73:10		113:5,11	27:1,23 47:12	
75:19 77:6		goose 89:10	47:16 82:6	
83:4,7 84:12		gotta 68:1,5	88:14	
84:20 91:18		gotten 18:12	grounded	
		60:6		
				H
				habitat 5:25 6:2 7:3 14:23 15:5 16:14,17,19 20:2,3 21:25

Public Hearing

3/8/2019

Page 129

22:25 24:25	42:19 43:10	111:12	identified 37:5	impacts 16:13
26:19 28:3,4	74:11 77:23	highest 17:16,21	37:10 82:12	17:3 18:6 27:5
36:8,21,24	90:6 105:20	33:12,18 35:18	92:3 96:17	27:8,15,18,19
37:4,10,11,13	113:16,20	46:19 59:15	98:20 102:5	28:7 40:15
37:18 38:16	happy 35:13	86:19	identify 76:11	45:22,23 47:9
48:3 49:7 55:8	50:20 70:4	highlighted 83:5	104:14	47:10,23 48:1
65:3 81:2,4,9	71:20 75:6	highlights 33:5	ill 109:16	48:19 49:5,7,7
82:2,4,11,12	harbors 85:11	highly 65:15	imaginable 72:4	50:11 52:4
82:13 83:10,24	hard 78:10,22	hill 106:6	72:4	53:6,23 54:2,2
85:23,25 86:5	Hart 8:20 13:24	historic 75:24	imagine 36:12	54:3 61:16,19
86:8,13,14,17	60:22,23 61:2	76:6 77:1,12	50:18 70:18	61:21 63:6
86:18,20 87:19	68:16,23 71:15	85:25 86:1,15	immediate	71:22 74:22,24
87:23 88:3	harvests 98:12	88:24 96:6,11	27:12	77:18 78:5,16
92:19,22 93:2	hay 10:8,16,22	historical 78:19	immediately	81:9,11 82:25
93:4,4 103:5	84:3 111:4	Hold 37:23	12:18 65:10	83:1 84:25
103:17	head 59:12	honest 66:17	89:10	85:8,15 86:4
habitats 24:23	header 30:6	69:10	impact 6:10,15	87:25 88:7,16
36:4 37:5,20	headphones	Honor 5:6 41:8	13:15 16:3,13	88:21,25 89:7
38:4,12,19	48:14,16,16	79:9,12,16	17:1 27:9,11	89:9,19,21
99:18 109:19	healthy 98:15	116:16,22	27:11,11,12,21	90:2,9,10,12
half 29:14,25	hear 48:15 70:5	117:4,7	27:25 28:2,3,3	90:20 91:16,20
30:14,20 60:5	114:9	hours 108:16	28:6,10 32:1	92:7,11,21
66:22 89:18	heard 54:6,7	house 45:3,12	34:22 47:13,15	93:3,7,11 99:6
90:3 92:2,6	hearing 8:24	45:13 65:8	47:17,20,21,25	99:18,21 103:3
94:23 106:11	17:13 48:5	huge 102:15	49:2 50:3,5,6,9	103:12 104:3
106:23	118:9	human 82:25	50:12,15,16	105:16,17,19
halfway 7:7,12	hearings 40:19	humans 31:17	51:7,9 52:5,6,7	105:22 106:3
7:18	held 13:25	hundred 96:4	52:19 53:15	107:2 109:18
Hall 1:19	help 38:13 55:10	98:8,12,21	54:9,9,11,24	implement 88:9
hand 67:22	69:1 81:20	104:11 108:15	56:12 59:4	106:7
handles 59:18	85:7 107:10	115:17,18,22	62:6,9,10 63:4	implications
hands 103:24	112:23,24	116:2 118:6	63:10,10 75:12	72:17
hangover 111:5	113:16	hundreds 80:23	77:9,13,19	implied 110:4
happen 53:17	hereinbefore	hunt 30:3	85:13,18 87:15	importance 83:5
64:3 74:10	118:10	hunted 113:21	88:19 91:15	important 7:3
happened 14:25	hey 18:17 73:18	_____	93:14 99:7	18:20 22:20
28:12 44:18	hierarchy 52:21	I	103:8,14,20	61:11 69:25
48:11 95:5	high 29:18 72:10	Id 9:8	104:16,19	71:18 72:19
101:12 104:15	72:13 97:14	idea 39:24 40:2	106:22 115:8,9	75:23
105:7 106:2	101:25 102:3	ideal 25:11	impacted 7:9,14	impression
happening	103:9	74:19	7:20 8:3 58:21	42:24
64:20 65:3,21	higher 31:11	identification	impacting 51:11	improvement
happens 27:15	76:3 107:13	88:10 100:5,23	52:2 59:10	73:2
		101:4		

Public Hearing

3/8/2019

Page 130

inaudible 5:14 13:18 70:8 72:11 104:5 107:22 112:3 113:22 115:14	81:14 84:15 88:9,13 indicates 9:12 12:19 23:16 40:13 95:6	inside 97:2 110:19 insisting 48:14 installed 15:9 instance 83:21 98:10 107:11	involve 60:14 involved 59:21 60:1,4,9 64:14 64:18 65:13 76:4 80:20,21 101:19,23 102:7,9 104:2	20:20,22 50:24 51:9,11,15,19 58:20 59:5
incidental 87:16 90:25 91:6 include 56:2 82:15 83:2 88:21 included 31:20 43:24 55:9 57:19 66:11 82:21 98:4,11 110:12 includes 33:13 89:1 including 53:5 82:17 86:23 98:19 inclusive 57:19 98:20 inconclusive 32:4 incorporate 72:24 incorporated 27:13 incorrect 30:13 94:7 increase 31:6 34:14 107:15 increased 46:9 92:9 93:8,10 increasingly 60:7 incredibly 69:24 indicate 90:19 100:4 106:8 indicated 9:19 12:4 19:1 20:12 21:24 31:5 34:6	indicating 25:15 31:16 indication 106:15 indicators 69:19 indirect 27:8,10 27:15,18,21,25 28:2,5,6,10 47:25 48:2,7,9 48:19 49:5,7 50:9,15 103:8 103:25 104:3 104:19 106:2 individual 33:11 98:9 individuals 82:10 infer 31:20 97:13 inference 31:19 86:2 inflate 29:9 influences 62:15 information 28:20 45:10,14 76:22 81:11 86:2 88:1 89:25 101:5,22 infrastructure 54:10 initial 60:10 68:23 102:12 initially 48:4 101:15 injured 39:8 injury 54:15 input 75:21 77:8 83:3 112:6	instances 39:7 intensity 86:12 95:21 96:17,24 97:4,4,8 interacting 60:6 interaction 66:1 88:15 interactions 60:10,12 interconnect 68:13,14 interest 24:18 interests 75:3 76:24 interfere 53:20 interim 38:10 interpret 35:12 55:7,20 58:11 interpretation 41:17 45:19 51:17 57:6 58:9,25 interpretations 41:18 interpreted 57:21 59:2 63:7 interpreting 83:18 intersect 37:24 intersects 37:22 Inventory 84:14 investigate 89:14 106:13 110:5 investigated 104:8	involvement 81:14 involves 27:7 Iowa 89:9 115:1 irreversible 99:8 irreversibly 56:14 98:3 99:12 isolated 19:23 20:13,16,19,22 issue 49:6 66:3 105:20 110:21 issued 72:12 issues 64:22 66:7,9 67:20 92:23 it'd 64:16 iterative 64:19 iteratively 65:11	<hr/> K <hr/> Kayla 1:24 118:4,13 keep 54:3 71:20 75:5 100:3 Kent 31:24 key 11:9 14:14 44:25 45:19 54:17 kilometer 97:1,6 kilometers 97:1 Kimberly 4:4 kind 13:6,23 24:21 32:21 41:16 42:6 50:21 51:10 59:16 67:7 78:1 95:22 97:25 102:21 104:12 115:25 kinda 100:20 kinds 19:20 21:3 44:9 101:3 know 13:24 16:10 20:21 21:1 28:12,13 28:13,14 44:14 48:16,17,21 55:14 56:15 59:12 66:16 67:6,14,22 68:12,19 70:9 72:3 73:18,21 74:5 76:1 78:4 78:7,10,17 97:7 100:9,19 101:20,20 102:19,23 103:5,18 104:5 104:15,24
			<hr/> J <hr/> January 8:6 19:3 job 71:23 102:20 jot 12:22 JUDGE 2:3 Julie 2:6 July 23:7,7,18 23:18 June 23:6,7,17 23:17 jurisdiction 19:22,24 21:20 51:4 jurisdictional 19:21 20:13,17	

105:1,6,6,7	74:8 75:10	left 38:12 46:19	105:12,13	48:6,19 67:10
106:6,12,21,24	landowners	51:21 54:20	life 72:11	68:17 71:9
107:4,17 109:7	18:12 53:18	71:8	light 11:6 17:12	78:18 103:7,10
109:14 110:25	65:4 66:2,3,9	legislature 74:6	81:11	104:25 105:8,9
111:14,16	66:12 67:15	legitimate 74:8	likelihood 82:1	112:6 113:10
112:21 114:5	68:2 70:4 71:7	lek 24:3 29:4,6	90:11 97:13	live 45:10 64:13
115:12,21	71:20 72:16,18	29:13,22 30:9	Likewise 89:24	70:23
knowledge	73:23 75:6	30:15,20,25	limited 71:10	living 107:17
34:18	77:22 78:11,16	leks 24:21 29:1	88:24 89:6,8	LLC 1:4,8 2:15
known 34:11	78:17 102:24	29:16,24 30:12	90:24 91:11	2:23
36:3 38:9	107:9	30:16,18 92:3	96:3	local 25:14
39:11 43:8	lands 6:23 10:16	92:6,7 114:10	line 1:5 5:21	26:16 57:5
65:2,2 90:4	11:12 84:1,2,5	length 98:9	9:25 13:15,25	58:8,25
92:14 95:3	landscape 36:4	Lesh 26:19	14:5,13 15:10	located 10:2,14
knows 51:3	44:5 64:5	let's 11:21 19:11	15:13 16:2,24	10:16 11:16,17
Kroshus 2:7	71:12 84:6,11	19:16 27:22	17:6 28:12,21	12:3 14:12
63:17,18 112:9	101:1 103:15	28:22 30:16,18	32:19 34:2,7	16:16 17:8
112:10	105:24 106:19	53:13 65:25	34:25 39:13,19	30:18 69:10
	114:25	68:9 112:7	39:21,25 40:10	75:22 77:9
L	landscapes	letter 9:19 10:11	53:12 54:6,12	82:4 84:10
labeled 98:22	83:23 111:10	10:13 18:22	88:14,14	91:8 92:2
lack 43:23 86:3	large 36:13 44:8	19:1 25:18,19	lines 34:4 39:10	93:21 96:16
86:3 87:3 88:5	110:16 114:23	25:21,23 26:1	40:7 67:10	location 1:19
91:10 108:23	largely 86:15	26:8,10 43:25	list 45:4 55:24	5:19 12:16
lake 65:1	104:18	46:4 83:7,11	56:1,6,15	15:18 27:25
land 5:11,13,14	larger 55:25	83:12 85:9	57:25 58:5	60:18 61:1
9:6 10:8,22	85:4 91:25	91:18,22 92:4	98:5,8,8,10,11	64:8 90:17
11:2,13 12:3	110:14	93:13,18,21,25	98:19 99:15	97:3 109:13
12:14,15 16:6	late 44:18	94:3 109:10	111:23 115:22	111:6
16:16,25 17:8	101:19 104:24	110:1,4	116:2,8	locations 9:13
17:25 18:2,5,7	law 2:3 58:2	letterhead 26:1	listed 6:9 36:2	15:14 16:2
21:2,17 64:19	67:3,6	letters 27:14	56:19,19 98:7	82:18 86:15
65:4 68:3 70:1	layer 84:13,15	41:22 74:14	112:1	89:23 96:23
71:4,5 77:23	103:19 111:17	109:6,20	lists 55:17	102:24
78:1 107:12,12	layers 38:25	110:16	literally 39:20	long 15:1 48:22
107:13,13,14	leads 73:5 74:17	level 34:19,22	literature 31:13	61:14 103:22
111:4	74:17 76:21	44:5 54:25	34:19 36:22	105:19 115:23
landed 96:25	learnings 17:12	85:13 91:20	40:6 50:18	long-term 78:3
97:2,7	lease 68:3	93:14 99:11,13	81:10 88:18	90:7 105:17,22
landing 69:18	leasing 64:19	101:13,15	litigation 19:2	longer 33:20
landowner	leave 114:12	levels 60:14	little 12:22,22	73:25 114:25
18:16,19 53:22	116:13	86:14	13:23 19:17	look 7:6 9:7,16
65:10 66:10	leaving 78:8	Lien 41:6,7	22:19 28:24	9:22 11:19
69:24 72:19				

Public Hearing

3/8/2019

Page 132

12:10,21 13:5 13:16 21:10 22:21 23:9 24:22 29:17,19 36:22 37:11,21 39:19,20 41:3 45:5,7,7 59:11 59:13 60:19 69:2,3 75:11 97:12 101:21 101:21 104:7 110:14,19,21 110:21,22 112:22 looked 31:25 106:24 108:13 looking 7:23,25 9:6,17,25 11:4 11:5 12:1 16:1 16:6 20:11 25:1,1,20 26:1 27:7 29:11 30:1 31:2 33:15 35:1,5 37:2 38:3 39:23 45:3 53:12 64:9,10 64:20,25 65:18 67:11 78:2 91:1 95:14 102:1,4,18 105:9,18 106:2 looks 12:17 13:2 35:10 37:12 69:8 71:5 lost 116:11 Lostwood 46:11 46:12 47:6 85:5 92:9,13 92:17,21 93:11 93:16 110:13 111:6 lot 5:9 16:11	27:20 41:19,22 41:22 47:19 53:4,17,17 54:20 61:14 63:20 66:11 72:24 73:17 74:5 75:15,19 76:2,21 78:24 97:2 101:11 102:16 104:1,2 109:10 110:4,7 110:12 114:7 115:6,7,14 loudly 48:15 low 32:14,16 69:5 70:18 72:10,13 86:12 89:22 91:17 95:21 96:17,24 97:8 100:9 109:1 114:1 luck 113:1 <hr/> M <hr/> ma'am 33:23 main 1:20 47:1 48:9 109:3 110:9 maintain 75:6 majority 35:21 112:18 makers 61:4 making 17:23 38:14 61:6 72:18 males 29:8 manager 60:13 101:8 Mann 2:17 manual 55:17 map 11:1 12:5 13:20 14:19 15:2,3,6,8,21 15:23 16:1	21:13 33:15 35:1,10,14 37:5,9,12 69:3 71:4 72:3,9 95:10,14,15,16 95:23,25 97:12 97:16 mapped 83:24 maps 37:16,18 37:18 72:21,21 March 1:16 83:12 85:9 93:12 94:11,17 109:10,20 marginal 107:12 mark 88:13 marked 86:6 93:22 95:3,20 96:21,25 106:25 marker 39:17 master's 80:16 material 63:21 118:7 materials 53:7 matter 51:1 66:22 105:18 matters 50:23 matting 53:25 maximum 40:4 53:2 92:20,23 meadowlark 52:13 mean 6:7 32:25 33:1 37:23 51:10 52:13 55:7 57:23 58:1 66:22 69:7 77:5 95:21 101:23 104:22 105:18 110:6,24 113:13	meaning 19:21 27:8 28:4 47:23 57:19 77:20 108:18 means 6:8,10 52:5 56:9 69:21 95:1,17 96:1,10,24 97:4,5 110:5 118:20 meant 83:19 measurable 103:21,22 measure 32:16 46:22 104:3 measured 90:17 104:1 measures 40:8 52:16 53:4 61:22 62:23 81:24 92:4 mechanical 5:18 mechanized 5:21 medium 72:10 72:13 meet 37:20 65:6 107:8 meetings 44:3 megawatt 8:21 29:18 30:11,18 30:19,21 33:16 33:18,21 91:3 102:8 megawatts 46:23,24 61:10 61:10 68:8,9 68:13 70:7 93:15 94:6,6 Memorial 1:19 memory 110:2 mentioned 32:4 63:22 95:1	118:10 meters 106:9 methods 28:17 micrositing 16:7 mid 116:1 middle 12:11 13:6 16:5 35:6 35:11,17,19,23 53:18 55:4 migrate 87:5 migrating 89:24 migration 69:6 69:8 86:7,22 87:20 88:2,22 90:25 91:5,12 95:10 108:16 113:17 migrations 36:5 96:22 migratory 82:9 85:24 86:4 87:8,18,22 88:6 89:7 96:24 108:14 108:24 Mike 59:19 mile 29:14,25 30:15,20,21 88:12 89:18 90:3 92:2,6 94:23 97:6 101:9 106:11 106:23 miles 32:15 92:13 93:1 96:5 110:17 minefield 75:2 minimal 54:24 63:10,10 minimization 46:22 52:16,25 53:11 54:4 62:11,18,25
---	---	---	---	--

Public Hearing

3/8/2019

Page 133

63:14 81:22 minimize 53:1 53:10,15,22,23 54:1 61:22 71:20 78:5 92:10,21 93:3 93:6 110:10 minimized 45:25 61:24 62:14,16 71:22 87:25 93:9,11 99:17,22 minimizing 53:24 83:1 minimum 54:25 minor 8:20 Minot 111:20,21 minute 11:19 14:20 20:25 44:16 79:2 116:23 minutes 17:4 mirror 110:25 misleading 113:8 missing 44:22 44:25 76:17 Missouri 84:11 mitigate 43:6 45:21 51:12 53:3 61:23 63:5 88:8 102:15,17 109:21 mitigated 45:25 61:21 62:14,22 75:1 77:14,20 99:17,22 mitigating 101:12 102:13 102:14 mitigation 19:6 19:14 40:12	46:22 52:16,21 54:14 62:12,13 62:18 63:1 102:19,21 107:1,2,7 109:6,14 mitigations 61:23 mix 111:23 model 17:17 51:22 86:13,15 modeled 20:3 modifications 92:12 modified 82:19 Moldenberg 3:4 money 44:16 monitoring 40:14,23 115:4 month 16:11 90:17 Moorhead 80:16 morning 74:15 110:1 113:5 mortalities 88:6 mortality 34:15 40:22 88:22 89:21 108:24 114:14 115:7 motion 39:23 40:2 mound 29:8 Mountrail 1:5 move 8:2 17:8 17:11,24 18:3 18:12,17,18 19:16 28:11,22 35:19 48:20 63:19 67:21 85:3,4 90:4 104:7,8 106:4 106:9,11	110:11 moved 17:14,16 17:18 27:24 28:15 48:4 69:25 95:2,6 movement 48:10 moves 27:9 48:23,25 moving 40:3 47:17,22 48:1 48:3 70:17 85:14 90:6 93:16 102:23 multiple 16:4 67:20,25 97:8 97:9,9 multistep 38:24 music 48:15,15 <hr/> N N 1:12,14 2:1 3:1 4:1 name 46:9 80:6 80:8 names 111:16 narrow 67:9 national 84:14 85:5 91:25 92:9 93:11 110:13 native 5:10,11 5:13,22,25 6:17,22 7:1,8 7:14 8:4,16 12:3 13:15 14:23 15:5,20 16:3,5,16,17 16:19,24 17:3 17:8,11,14 18:5,6 46:18 47:6,9,10,18 47:22,24 66:13 78:13 81:4	82:15,21,23,25 83:2,6,22,23 84:3,25 85:4,6 85:16 99:18 103:17 109:18 110:11 111:4 111:13 natural 109:17 navigate 75:1 near 38:9 48:17 48:18 65:8 106:20 111:6 nearest 92:16 nearly 26:23 94:1 necessarily 5:20 15:15 28:11 111:20 neck 29:9 need 6:15 11:19 36:15 68:1 101:21 106:3 needed 32:16 needing 63:5 needs 74:10 105:21 107:8,8 107:9,9,10 negative 61:19 negligible 51:24 55:1 negotiations 68:23 neighbor 48:13 neighborhood 45:8,11,12 Neighborhoods 45:11 neither 11:10 NEPA 6:13,14 nest 32:14 90:18 106:12,23 108:9 nesting 107:16	nests 24:2 91:7 91:10 never 42:3 57:6 57:8 58:10,12 69:4,13,17 104:14 new 45:10 NextEra 2:15,23 19:1,5 32:9 40:13 59:15 107:5 112:19 113:7,14 NextEra's 6:17 nice 102:20 106:7 nine 21:11,14 nineteen 118:6 non-jurisdicti... 50:24 51:22 non-listed 13:19 non-suitable 17:3 normal 18:15 north 1:1,21 2:12,20 3:7 6:21,25 11:22 21:23,25 22:4 22:12 25:8,15 25:21 26:2,22 27:3 31:5,9 33:2 34:6,7,13 40:25 46:3 49:2 65:23 66:21 69:3 80:10,22 81:13 82:24 83:4,7 83:10,16,20 84:10,12,20 86:23 87:10,21 88:4 89:1,13 89:23 90:1 91:17,18 93:18 94:14 96:3,12
---	---	---	--	---

Public Hearing

3/8/2019

Page 134

96:14 97:20 98:4,12,15,17 98:25 99:1,5 101:24 105:22 106:8 108:10 108:12 112:12 114:20 115:4 118:5,15 Northwest 1:20 noted 94:4 95:25 notes 118:8 November 8:5 8:22 18:23 25:25 26:8 novice 5:22 number 7:5,11 7:22,24 9:5,16 9:23 10:3,4 11:1,15,21 12:10,21 13:1 13:5 14:16,19 20:6,8,9,18 23:11 25:16,20 26:2,6,25 29:18,20,21 30:4 33:22 34:24 36:25 37:3,7 44:12 70:3,18,20 82:24 94:6,11 94:17,19,20 96:19 104:20 104:23 109:8 112:16 numbered 26:16 numbers 23:13 30:5,7 34:5 99:14 108:5 numerous 24:3 25:3 86:24 88:4 NWI 84:15	O 1:14 objective 114:20 objectives 76:24 obscures 36:19 observations 90:25 91:6 96:11 observed 41:2 82:6,8 89:4 90:22,23 91:1 91:4,7 observing 82:10 obsolete 16:22 obviously 41:3 114:13 116:4 occur 34:11 52:7 60:13 64:22 74:3 98:17,17 98:18 occurred 96:7 96:11 occurrence 86:21 98:15 occurrences 96:6 occurring 54:2 82:3 97:13 occurs 62:10,12 82:25 October 102:10 112:20 offensive 77:25 offer 26:19 45:20 109:21 offered 74:25 office 75:24 76:6 77:12 80:9 officer 80:12 offices 77:1 official 101:20 offset 19:10,13 27:16 28:8,16 70:10,12,14,15	70:17 73:20 74:21,23,25 85:7 103:5 107:2,7 offsets 47:7 53:5 90:9 103:5 offsetting 81:24 oh 10:16 26:3 77:10 95:13 oil 104:10 okay 7:25 9:4,22 10:19 11:5,25 12:25 13:14 14:19 15:17 16:20 19:16 20:5,12 21:7 21:23 22:24 24:7 25:14 26:15 28:22 30:14 31:5 34:13 35:4 37:8,9,21 41:21 42:2,6 44:1,10 45:16 46:5,25 47:14 49:16 50:2 51:8 52:1,25 53:10 54:5,16 55:10 56:4,22 57:8 58:13,17 58:17 59:4,8 59:14,14,21 60:1 61:13 62:5 63:16,19 64:12 65:1 66:2 68:6 69:23 76:25 77:11 93:25 94:13 95:13,15 100:7,15,21 102:7,12 104:16 105:8,9 112:18,18	113:10,16,16 113:20 115:13 115:17 Oklahoma 108:10 once 72:6 114:22,22 one's 106:13,24 onsite 101:22 open 21:4,8 33:10 operating 40:25 89:15 operation 40:16 100:14 operations 53:20,23 101:6 101:8 opinion 38:21 47:3 62:15 87:24 91:14 94:2 99:10 109:23 opportunity 74:13 opposed 27:11 opposite 18:14 58:23 opposition 67:15 optical 101:22 optically 101:24 optics 110:22 option 52:21 options 46:2 orange 96:15 original 15:12 91:2 110:12 111:6,6 116:5 118:8 originally 16:3 outcome 43:2,8 45:21 61:4	outcomes 48:24 outline 17:10 43:3 49:15,17 81:23 outlined 28:17 42:9 44:10 47:3 56:21 61:21 62:24 77:2 81:18 86:5 outside 30:19 33:14,16 71:17 91:13 101:24 overall 8:14 87:11 88:2 89:2,17 90:7 91:11,23 99:21 103:1 106:16 113:13,15 115:10 overhead 39:10 69:18 82:8 overlap 57:3 overly 98:19
<hr/> O <hr/>				<hr/> P <hr/>
				P 1:12,14 2:1,1 3:1,1 p.m 1:17 package 27:16 52:15 53:7,7 70:10,12 73:19 74:21,23,25 85:7 page 4:2 7:6,11 7:23,23,25 9:5 9:5,23 10:4 15:2 21:1 23:12,13 25:22 26:7,11,12 29:21 30:2,4,8 37:17 93:23 pages 118:6 paint 13:23

Public Hearing

3/8/2019

Page 135

<p>painted 43:22 pair 10:3 pairs 26:24 89:15,18 90:3 94:2,18 paper 108:6 papers 27:14 paragraph 7:7 7:12,12,17 9:22 23:15,16 26:15,16 30:10 parcel 12:18 part 1:15 8:23 11:22 14:14 27:7,16 35:17 36:21 40:12 50:1 54:17 66:16 69:24 72:10,13 73:23 82:21 83:6 102:5 105:24 106:1 109:24 111:2 114:12 particular 30:1 31:19 49:5 50:7 particularly 59:24 parties 107:9 partly 61:11 parts 70:25 74:18 pasture 107:13 107:14 path 46:1 74:5 75:8 113:9 pathway 45:25 pattern 69:8 patterns 41:2 paved 103:18 payments 107:1 107:2,7,7,20 109:21</p>	<p>peak 113:17 peer 34:18 pelicans 101:3 penalties 79:22 penetrate 5:20 people 42:20 64:13 77:25 100:18,21 107:17 114:9 percent 8:12 21:7,8,9,11,14 35:10,11,11,23 84:1,2,3,4,5,18 84:22 86:7 89:2,17 90:2 94:22,24 95:17 96:6,10 104:12 106:17 108:1 111:11,13 112:17 114:2 percentage 8:13 20:21 35:14 69:5 112:15 percentages 84:16 perfect 73:8 perfectly 66:17 performance 46:20 performed 32:17 performing 17:16 46:19 period 8:17 78:21 90:17 100:10 108:16 113:17 periods 90:25 91:12 96:24 perjury 79:19 79:22 permanent 54:4 permanently</p>	<p>7:9,14,20 8:2 permit 32:13 permitted 62:3 permitting 6:12 74:12,16 76:20 person 60:8,9 personally 31:12 personnel 100:14 101:6 perspective 60:6 71:14 72:15 perspectives 18:21 pertinent 81:4 phase 65:16 phone 66:12 phrase 55:21 115:13 physical 27:12 45:8 47:11 104:23 physically 50:12 52:22 physiology 80:17 pick 37:15 100:16 picture 13:23 36:18 42:7 piece 76:16 102:22 103:16 pieces 33:19 pink 20:20 96:14 pipeline 65:23 72:2 pipelines 73:16 pipet 32:17,20 32:22 34:1,8 34:15 52:13 pipets 33:9 place 31:2 45:19</p>	<p>56:7 68:3 72:4 78:8 100:5 104:20 109:3 115:9 118:10 placed 14:7 68:14 placement 16:22 16:24 18:5 places 34:7 52:18 plain 11:14 plan 19:2,6,7,10 19:13,14 32:10 32:11 33:4 40:12 55:24 68:15 100:5,11 103:5 115:4 plane 48:13 planned 9:13 10:2,14 81:23 109:16 planning 33:4 plant 55:2 98:2 planted 84:2 plants 56:12 73:17 plastic 39:20 played 42:4 please 20:5 26:5 42:3 80:6 81:6 81:16 82:20 93:23 95:16 pleasing 70:8 plenty 106:22 PLLP 2:10,18 plus 10:9 30:21 point 5:2 21:10 30:1 31:2 43:1 43:5 49:17 65:13 66:2 67:2 72:7 97:18 100:9 102:14</p>	<p>points 43:20 71:9 pole 14:14 15:14 15:18 16:2,16 52:22 53:15 poles 13:25 14:2 14:3,12 15:9 15:16 16:4,23 16:24 53:12,13 53:14,18 54:8 policy 72:17 pollinated 7:2,4 pond 28:14 poor 40:1,1 population 31:6 31:10 34:19,22 64:13 90:8 91:20 96:20 98:16 99:11,13 108:9 Porsborg 3:4 portfolio 40:25 portions 21:13 81:4 pose 62:20 position 6:17 52:17 62:1,17 80:11 85:23 109:9 possible 6:18 17:8,20,24 18:3,7 45:9 50:17 53:2 70:18 71:23 86:23 87:20 post 40:14,22 114:15 115:3 post-construct... 81:23 pot 50:4 potential 32:2 38:18 40:21 45:22,23 61:20</p>
--	---	--	---	--

62:9,9,10,13 81:9,11 82:12 82:12 85:17,22 86:8,14,17 87:19 88:3,8 88:19 90:12,20 92:7,11 93:11 99:13,17 100:10 Potentially 108:11 112:4 pothole 50:6,12 potholes 19:23 25:12 power 64:23 88:14 92:25 prairie 5:10,11 5:13,22,25 6:17,23 7:1,8 7:14,19 8:4,16 12:3 13:15 14:23 15:5,20 16:3,5,16,17 16:19,25 17:3 17:8,11,14 18:5,7,13,18 19:23 21:25 25:12 29:7 31:25 46:19 47:6,9,10,18 47:19,22,24 66:14 78:13 82:15,21,23,25 83:3,6 85:1,4,6 85:16 103:17 prairie-wetland 83:10 pre 8:23 43:4 64:2,11 89:4 precedent 57:21 58:8 59:1 precedes 65:11 precise 96:23	precluded 67:3 67:6 predator 36:16 predict 74:2 predictable 72:25 predominantly 83:21 prefaced 113:1 prefer 22:5 77:3 preference 52:24 78:14 preferences 18:1,15 53:22 65:5 72:20 prepared 32:9 present 43:8 55:8 presented 16:4 17:19 preservation 75:24 76:6 77:1,12 president 59:19 60:15 pretty 8:12,13 25:10 35:5 39:2 66:20 73:5,6 75:25 78:22 103:11 114:5 115:5 previous 60:9 72:8 77:2 79:18 previously 31:14 57:20 84:2,4,7 93:20 95:9 97:19 110:23 primary 61:9 109:11 112:24 prior 60:8 72:8 94:5,13 102:7	priorities 58:15 priority 55:12 55:16 56:24 57:2 97:21 98:5 99:5 115:19 private 6:12 probability 35:18,20,23 probably 50:14 50:16 67:18 76:2 78:18 100:17 103:11 110:24 112:6 113:24 problem 44:12 44:15 69:4,12 72:20 102:15 102:15,17,17 102:18 108:2 109:4 113:23 problematic 66:19 procedure 88:11 proceed 43:11 43:19 63:25 proceedings 64:17 process 6:12,13 14:15 17:10,23 37:16 38:3,14 38:24 42:7 43:23 44:11,11 64:19 66:18,19 71:2 72:22,23 74:12,17 75:5 75:12 76:4 77:5 78:2 101:7 114:12 processes 37:19 67:17 76:20 processing 73:16	produced 25:13 72:10 producing 17:21 73:14 product 64:21 professional 80:18 Programmatic 92:25 project 5:10 6:18 7:9,15,20 8:3,12,14 11:1 11:3,7,18,23 12:11,23 13:6 13:7 17:12 19:17 20:17,21 21:8,11,14,24 23:4,24 25:10 25:17 26:13,23 27:1 29:15,19 29:25 30:11,18 30:19 32:7,15 33:9,14,15,16 33:18,20,21 34:14 35:6 37:13 40:24 42:10 46:18,23 51:7,25 59:23 60:11,13 61:10 61:15 62:6,18 65:14 66:4,23 68:5,7,8 69:14 69:17,19 72:6 73:24 81:11 82:6,18 83:1,9 83:15,17,25,25 84:6,6,9,15,21 84:23 85:3,4,5 85:10,11,13,16 85:23,25 86:8 86:17,23 87:15 87:17,18 88:1 88:3 89:8,11	91:2,4,13,19 91:23,24 92:5 93:8,9,15,16 94:1 95:14,20 96:16 99:12,20 101:14,15 102:6,7,8,25 103:2 108:2,19 109:12,16 110:7,12,19,20 110:22,23,24 111:6 115:10 project's 75:21 82:21 85:17 projects 17:13 55:7 67:20 71:24 77:2 80:20,22,24 81:13 82:3,5,9 82:14 83:16 84:10,17,17 86:7,11,24 87:10,13 88:4 88:6,7,16,25 89:23 90:13,21 91:8,9,10,17 93:1 99:7,19 101:21,24 107:21 111:15 111:20 112:11 promise 79:25 prong 47:8 proper 74:7 property 65:7 proposed 21:24 29:15 64:13 66:23 72:6 101:18 109:12 proprietary 100:11 prospecting 65:16 protecting 78:5
--	---	--	---	--

78:6	putting 44:1	radically 22:22	receiving 74:14	94:1,5 103:1
protocols 25:3,4	52:10,18,22,23	radio 35:15	Recess 79:4	104:12,19
provide 28:20	53:13 54:8	raised 42:10,17	116:25	refer 70:24
65:17 68:24	71:11	43:14	recognize	reference 25:18
74:21,23 81:8		ranchers 107:18	113:14	25:23 30:2,10
81:10 97:19	Q	range 41:2	recommend	30:11 93:23
107:24	qualifying 107:8	63:21	28:9 60:17,20	94:22
provided 19:10	quantifiable	raptor 24:2	60:24	referenced
19:11 26:20	104:17,21	rare 33:6 50:16	recommendat...	18:22 65:20
71:25	quantify 103:24	55:18 56:2,5	61:7 109:11,14	94:21 95:9
provides 54:23	quantitative	56:13,17,25	recommendat...	referencing
providing 5:2	103:22	57:17 58:3	27:13 61:2	19:13 28:6
90:8	quarter 96:20	66:24 98:2,6	66:13 92:18	referred 27:7
proximate 48:17	question 12:1	98:14,22 99:6	115:12	referring 25:7
48:18	16:20 18:4	rates 90:16	recommended	25:19,24 55:14
proximity 89:15	22:10 29:23,24	reaction 101:23	92:20	refine 8:7 15:15
PSC's 57:11	30:14 41:15	read 35:9 42:11	reconcile 69:11	refinement
PU-18-302 1:4	43:14 48:6	108:5 110:1	reconnaissance	16:11
PU-18-344 1:8	59:14 68:17	readjusted	64:7	reflect 94:19
public 1:2 2:5	73:9 98:14	113:21	record 5:1 59:9	reflective 40:4
3:10 6:12,12	101:12 102:13	really 35:9 45:1	77:17 79:6	reflects 8:25
64:12 70:11	106:4,10 107:3	50:17,23 58:7	117:2	94:20
74:16	112:15 114:19	61:16 63:19	recorded 114:3	refuge 85:5 92:1
publicly 44:7	115:17	66:25 69:23	RECROSS	92:10,11,13,15
64:25	questioning	71:12 72:20	75:18	93:12 110:14
published 89:1	28:21 114:13	96:23 104:1,7	rectify 55:3	regarding 28:21
purchase 64:23	questions 28:23	105:18 109:9	red 21:13	88:19 92:18
purport 118:9	34:25 41:5,7	110:5,13 111:7	redirect 79:7	97:20
purpose 11:12	41:13,19,23	113:7 115:2,8	reduce 47:20	regardless 51:19
36:21 40:22	42:2 50:20	reason 22:3,11	54:14 81:21	74:23
81:6,16 102:12	63:20 70:21	27:2 31:9	85:3 93:14	region 83:20
115:3	75:13,15 79:8	32:15 34:9,15	100:8	86:21
pursuant 14:8	79:14 93:19	56:22 76:13	reduced 30:11	regional 44:8
53:8	100:2 105:11	100:15 109:25	46:23 61:9	regs 56:8
pursuing 32:13	105:13 113:2,4	reasonable 59:9	82:24 85:10	regulations 57:7
put 27:23 39:12	116:13,18,20	reasons 24:19	92:6 106:16	57:11,22 58:9
47:10 50:5	quickly 21:7	61:9 67:18,25	reduces 70:2	61:25 63:8
54:1 65:8,9	63:19 66:20	71:15 83:2	reducing 85:13	70:14
66:14,15 67:5	quite 41:22	reassessed 94:8	93:15 102:25	regulatory 63:6
71:10 76:12	98:10 114:1,17	recall 18:24	106:19	relate 81:10
77:3 95:16,22		116:21	reduction 26:23	related 31:25
100:5,16	R	received 18:19	70:6 91:23	80:20 92:23
104:22 110:6	R 1:12,12,14 2:1	22:17 80:15	92:5,8 93:8,9	relates 48:8 50:4
	3:1			

Public Hearing

3/8/2019

Page 138

<p>51:13 76:25 relationships 75:6 relative 109:17 relayed 109:15 relocated 35:16 85:6 remain 114:25 remaining 11:16 85:7 remedied 16:6 remind 41:11 remote 96:22 removal 70:7 remove 52:9 104:10,10 110:21 removed 46:17 repeat 7:10,16 22:8,10 29:23 repetitive 50:2 replaced 16:5 report 33:10 37:2 86:9 94:17 reported 10:4 118:9 reporter 1:24 118:4,22 REPORTER'S 118:2 reporting 101:7 reports 49:24 81:4 represent 15:9 representation 38:14 76:22 representative 59:20 represented 46:3 represents 35:14</p>	<p>REPRODUC... 118:20 request 24:5 require 57:12 requirement 70:11 requirements 51:17 70:24 71:1 research 26:19 39:2 89:6,13 89:17 residences 71:7 residual 53:3,6 103:3 resolve 99:13 resource 61:17 61:19 63:11 resources 2:15 2:23 76:1,1 78:6,7,20 105:19 109:17 respect 16:23 17:7 27:21 40:13 82:1 90:19 94:9 101:13 respond 74:2,13 responded 55:23 responds 101:8 response 42:16 43:15,18 44:23 58:24 93:19 responses 46:6 responsible 80:25 restore 107:12 result 25:17 26:23 30:9 38:7,19,24 57:4 68:6 94:1 98:21 99:7</p>	<p>resulted 10:1 92:1,12 results 29:21 30:8 38:12 41:17 86:16 87:11 90:18 retrieved 97:3 revealed 86:11 review 81:25 85:22 86:5,9 reviewed 34:18 81:3 Richmond 1:24 118:4,13 right 7:16 12:11 12:15 16:5 23:1 26:4,4 33:16,23 42:15 47:2,11 51:5 54:19 55:4,13 58:1,17 62:25 63:9 68:25 75:10 77:15,22 100:23 101:18 102:19 103:10 104:23 108:4,9 109:24 112:1 112:13 113:20 115:17,25 rights 75:11 ring 78:21 risk 32:14,16 34:14 39:25 43:13 54:14 62:20 63:14 69:19,21 70:2 72:10,13 81:21 85:20,21 88:8 90:15,16 100:8 100:10 101:12 101:13,15 102:1,3 103:1 107:24</p>	<p>risks 40:23 81:20 102:13 109:1 road 8:8,21 52:6 65:8 73:1 103:14,18,19 roads 110:17,18 roaming 5:22 role 60:4,8 80:24 rolling 60:2 room 64:17 73:13 106:22 roosting 85:22 85:24 roughly 21:19 21:21 round 39:19 route 6:16 Rugby 111:22 rules 73:1,5 76:9 run 25:5 54:13 rural 64:13</p> <hr/> <p style="text-align: center;">S</p> <hr/> <p>S 1:12,14 2:1 3:1 sac 29:11 sacs 29:8 safety 39:21 sake 99:4 sample 86:10 114:2,4 sampling 114:16 114:21 Sandercock 31:24 sandhill 86:3 87:5,6,12 88:5 108:4,7,17,18 108:24 sarcastic 69:7 satisfy 75:5 saying 10:12 16:20 18:16</p>	<p>27:22 43:16 64:25 72:9 73:12 77:7,19 77:24 78:3,14 78:14 109:2 113:6,10 says 7:15,18 8:1 9:8,10,25 10:14 26:12 29:5 65:6 109:11,15 scale 64:5 scenario 67:23 scenarios 53:16 scenes 64:17 scheme 21:18 Schmidt 3:3 4:5 4:9 5:4,4,5 28:19 55:22 79:11,12 95:9 99:24 100:1 116:17,18 117:6,7,10 Schweigert 3:4 science 27:6 115:8 scientific 88:18 scope 57:5 68:18 95:23 searches 108:15 season 88:23 89:16 seasons 97:23 second 7:7,12 21:7 52:1 64:15 93:23 113:2 secondary 109:13 section 14:18 23:11,13 25:19 30:6,7 sections 110:17</p>
--	--	--	--	--

Public Hearing

3/8/2019

Page 139

<p>see 7:21 9:9,9 10:16 11:9,24 12:12,24 13:7 14:22 19:11 21:4 26:12 30:10,11,16,18 31:4 36:16 37:21 38:13 39:19 100:21 112:7 seeing 40:5 112:2 seen 36:13 58:11 70:15 sees 101:6,6 segway 73:8 selection 29:12 109:17 sell 45:3 senior 80:12 sense 69:11 112:5 sensitive 65:15 76:2 sensitivity 66:10 sent 18:23 sentence 31:3 114:17 separately 58:6 serious 42:10 60:25 serve 22:25 service 1:2 2:5 3:10 18:23 24:6 25:9 26:18 32:10,12 42:4,24 43:3 65:22 70:11 81:19 83:4 84:14,21 85:8 86:13 92:5,18 92:24 93:13 94:11,16 108:6</p>	<p>Service's 35:15 services 59:17 80:12 83:12 set 69:13 76:15 setback 93:5 setbacks 70:22 71:6,12 92:14 92:19 setting 14:14,15 25:14 seven 7:22,24 9:5,13 10:5,6 10:10,13,19 11:1,25 17:7 18:5 21:2 37:18,22 38:8 38:21 92:13 111:2,3,24 sew 108:2 sexual 29:12 shaded 95:15 shading 96:16 shape 78:8 share 40:20 shared 49:24 sharp-tailed 14:22 24:3,20 24:24 28:22 29:1,7,21 30:8 91:20 98:11,13 98:16 116:8 shift 48:1 shifting 91:24 shifts 15:19 92:1 Shippo 76:25 78:18 short 8:17 100:3 100:23 114:11 shortage 18:16 shorthand 118:4 shovel 5:19 show 11:13 15:13,15 29:10</p>	<p>33:8 38:24 65:23 82:1 88:18 95:21 showed 31:25 86:13 89:9,17 showing 16:2 shown 12:9 34:21 40:6 88:24 89:6 97:10 shows 10:5 14:20 20:19,20 76:20 77:17 86:16 shrink 67:21 shut-down 88:11 shutting 101:8 side 11:17,22 13:6 65:7,9 85:11 sighting 87:16 sightings 87:14 87:20 signed 64:23 significant 46:7 46:13,21 49:4 57:4 70:5 85:3 86:1 89:19,24 90:10 91:15 113:14 significantly 17:17 similar 5:21 55:15,22 83:13 83:15 84:16 86:16,18 88:3 89:22 91:17 111:10,23 similarly 54:5 84:10 89:6 simply 62:5 78:20 87:4</p>	<p>90:4 single 5:19 13:25 16:15 46:1 108:17 singles 29:6,10 29:13,15 64:9 sir 79:20,23 100:6 site 22:16,17 24:9,11,14 43:9,12,19 44:8,15,16,17 44:19 53:12 61:7 62:2,7 64:6,6,7 66:4 66:21,21 67:4 71:2,3 100:14 102:3 109:17 111:19,20 sited 27:14 51:14 55:6 68:19 93:1 sites 24:13 62:3 111:9 112:2 siting 1:6,10 15:15,20 26:16 34:4 51:14,17 52:5 54:21 58:9 63:7 70:19 71:23 74:24 75:5,12 78:2 97:24 99:20 102:24 111:9 114:12 sitting 48:13 61:25 situation 53:21 73:2,4 74:20 six 8:12,13 14:17,20,22,25 16:6,11,21 30:10,12,16 37:1,7,21</p>	<p>38:21 111:11 size 46:23 85:3 85:10 91:24 92:8 93:4,8,10 102:25 114:2,5 skipper 6:1,4 16:14,17,19 17:2,3 82:11 skippers 13:18 slash 111:3 slashes 95:19,20 slice 111:3 slightly 21:15,21 small 8:12,13 51:21,24 102:17 114:4 smaller 35:20 68:10 Smith 3:4,5 snapshot 37:16 snarky 69:7 sod 5:20 soil 47:25 78:7 solid 50:18 something's 67:19 sorry 7:10 10:17 13:11 15:12 20:7 22:8 29:23 50:2 sort 29:12 42:22 47:7 50:9 64:4 71:9 73:3 103:4 107:6 sorts 78:23 Soul 59:19 sound 34:20 sounds 14:10 29:3 31:1 source 8:9 34:10 57:13 58:10 sources 27:5 south 12:7 70:25</p>
--	--	---	--	--

Public Hearing

3/8/2019

Page 140

87:10 88:4 108:10,13 southeast 12:22 12:23 southeastern 33:17 space 12:18 13:2 47:11 62:8,11 68:5 71:10 114:24 spaced 14:3 spanning 54:7 sparrow 33:14 speak 41:16 54:19,20 58:15 64:12 68:16 species 6:9,9,10 7:2,4 24:18 32:21 33:3,5 33:13 35:25 43:7 55:2,5,12 55:16,25 56:1 56:1,2,4,10,13 56:16,18,20,20 56:23,25 57:1 57:19,24 58:3 58:5,15 65:2 82:2,5 91:8 97:20 98:2,4,7 98:9,9,20,22 98:25 99:2,5,6 99:14 104:11 115:18,18,23 116:3,3,6 specific 15:14 24:4,13,16 25:18,23 28:21 31:2 33:10 34:10 43:9,12 43:19 44:8 45:9 49:22,25 64:7 specifically 24:5	32:20 54:18 62:1 95:19 97:24 specifics 68:24 specifies 10:6 speculating 112:4 spiderweb 71:5 71:9 spot 42:16 52:11 77:7 spots 52:2 106:20 sprig 33:8 sprigs 32:17,20 32:22 34:1,8 34:15 52:13 spring 31:8,11 86:21 90:24 91:5 113:19 square 96:25 97:6 110:17 squares 96:25 squishy 105:8 staff 58:13 stage 37:19 43:21 64:5,7 65:4,17 stages 37:19 42:18 55:1 63:23,25 stakeholders 18:10 75:3 stand 105:3 standard 64:21 66:1 76:8 115:5 standardized 90:24 91:5 standing 107:15 standpoint 60:18 105:17 start 57:23 71:3	71:11 100:9 101:13 105:24 109:15 started 49:15 102:1,4 110:19 starting 72:7 102:14,21 starts 63:5 65:10 state 1:1 31:24 33:3,4 34:12 51:1 55:19,23 55:23 56:5,13 56:17 57:1,14 57:17 58:4,20 58:23 59:18 69:3,9,13 70:23 71:2 72:17 73:14 75:24 76:2,3,5 77:12 78:3 80:6,10,16 86:12 98:3,11 98:23 99:1,3 102:2 116:3 state's 99:14 stated 34:13 87:18 92:25 statement 10:3 22:3,12 27:2 34:9,16 36:5 91:23 93:25 94:13,16 states 7:7,13 18:23 80:23 98:18 statewide 116:11 status 16:9 51:19 68:22 Steinwand 59:24 stenotype 118:8 step 38:5,7,7,11	38:11,13 43:7 45:1 46:16,17 48:5 52:25 79:14 116:20 steps 38:10,23 40:21 46:13 stone 70:13 114:13 stopover 20:1,3 36:5,8,23 51:20 95:18 straight 12:6 strategic 17:15 strategy 64:17 64:17 81:1,15 81:18 street 1:20 45:9 80:10 strengths 70:20 strict 76:15 stripes 40:4 strong 49:4 strongly 61:12 structure 52:6 52:23 structures 14:2 15:18 31:16,20 32:2 studied 43:16 studies 24:17 31:15,15,18,24 41:17 43:6,12 44:6,20 49:2 64:7 81:2,9 82:1 88:24 89:8,14 104:2 104:3,14 106:7 106:8 108:11 108:23 114:19 study 25:5 28:25 31:8,23 33:8 34:1 45:17,18 87:8 90:1	94:21 95:5 96:18 104:13 106:14 108:12 114:4,20,23 115:1 studying 40:18 stuff 13:21 115:14 subcategories 19:25 subject 5:3 submit 32:10,12 submitted 8:6 16:9 subsequently 8:18 62:15 66:8 subset 32:2 36:24 55:25 substantial 19:18 109:18 substantially 31:7 substantive 8:19 successfully 90:5 95:4 106:6,12 sufficiency 92:16 sufficiently 93:3 93:6 suggest 18:11 43:22 suggested 57:8 57:10 91:19 suitability 36:20 36:21 86:13,18 86:20 suitable 20:1,3 27:1 36:8,23 38:4,16,18 Suite 2:11,19 80:10 118:14
--	---	---	---	---

Public Hearing

3/8/2019

Page 141

<p>sum 21:6 summarize 81:6 81:9 summarized 52:16 summary 30:9 93:7 summer 91:1,7 sums 20:25 sunflower 103:16,16 support 26:17 49:19 68:1,4 suppose 50:17 sure 7:11 11:21 13:22 25:2,20 26:6 29:24 34:10 35:13 40:23 42:19 45:8 62:13 75:23 78:4 95:24 surface 16:13 20:9 surly 104:25 surprise 74:17 surprises 74:14 surrogate 108:5 108:25 surrounding 98:18 survey 23:3 24:15,21 29:22 30:9 32:6,17 32:22 91:2,9 108:16 surveying 23:19 surveys 23:17 23:22,25 24:1 24:1,2,3,3,7,18 24:25 25:1 34:3 82:7,11 82:17 89:5</p>	<p>90:18,23,24 91:5 92:3 survive 49:1 swans 101:3 swath 87:21 96:2 98:19 swear 79:25 sweet 100:3 switch 68:25</p> <hr/> <p style="text-align: center;">T</p> <hr/> <p>T 1:12,12 tab 14:18 table 7:23,25 8:1 9:6 20:24 21:2 21:2,16 24:12 tabs 35:16 tackle 22:5 35:13 tailored 24:25 take 32:13 36:14 59:11 66:13 70:22 71:6 78:24 79:2 103:15 105:3 107:11,14,16 taken 79:4 81:21 88:15 108:22 113:14 116:25 talk 19:16 28:23 33:11 42:16 65:19,25 69:20 107:3 112:8 talked 5:9 21:16 31:8 41:21 75:19 talking 49:9 50:9 55:22 57:24 65:4 73:15,16,17 101:14 103:9 105:16 107:23 talks 26:16 110:16</p>	<p>tall 31:16,20 32:2 100:25 tat 43:9 team 9:21 17:2 26:20 59:18 60:22 61:3 63:13 65:4 technical 42:6 81:4 technologists 100:24 Technology 80:9 teepee 78:21 telemetry 86:10 96:18,22 104:5 telephone 117:9 tell 38:22 65:22 101:20 temporary 54:3 ten 53:14 term 33:7 39:15 55:13 56:24 83:18 99:9 103:3 105:19 110:3 terminology 50:22 terms 44:23 61:4 66:17 70:9,13 72:2 73:18 109:25 113:25 115:8 territorial 26:25 test 105:1 testified 8:20 13:24 17:1,11 17:14 18:15 19:8 31:14 32:13 33:12 34:23 38:23 42:21 45:24 46:14 51:23</p>	<p>54:22 62:23 63:14 71:15 74:22 75:24 testify 32:5 49:25 62:1 117:10 testifying 79:7 testimony 1:15 5:2,9 9:18 16:8 16:12 18:24 21:12 22:2,6 22:20 23:9 24:8 50:1,19 79:25 81:7 95:1 97:12,18 117:11 Texas 70:23,24 70:25 71:2 86:22 96:2,5 Thank 5:6 33:25 41:10,15 63:16 75:16 78:25 93:17 95:7 97:17 99:16,23 105:11 112:8 that'd 99:9 they'd 77:3 thick 36:17,19 thing 17:6 44:25 69:1,5 70:19 103:4,8 113:6 things 13:16 18:8 25:2 27:4 28:24 31:21,22 33:2 36:18 41:13 42:19 44:6,9 47:1 48:19 53:25 60:2,20 66:18 67:25 73:17 74:13 76:15 78:12,22,23 95:24 101:3</p>	<p>102:25 103:25 104:9 107:16 111:8 114:11 think 5:20 8:10 11:4 18:20 22:15 29:5 35:5 37:15 38:19 42:19 44:25 45:18 48:5,9,10 50:8 50:14,15,17 51:13 52:8 54:6 55:14,15 56:22 57:4,12 61:1 63:3,4 66:18,18 67:13 69:14,23 72:7 72:24 73:3,9 73:11,13,23 74:2,3,19,19 75:12,13 76:9 76:16,21 77:21 92:8 102:9,10 102:19,20 105:1,21,25 110:4,11,15 111:5,7,22 112:7 113:6,8 113:11,13,13 113:24 114:7,7 115:13 116:4 thinking 39:17 65:24 67:10 third 8:2 9:7,25 21:7 23:15 47:7 64:14 115:2 thirds 68:9 thought 54:7 61:11 113:3 thousand 98:13 thousands 108:15</p>
---	---	---	---	---

Public Hearing

3/8/2019

Page 142

<p>threat 39:11 threatened 6:4,7 6:8 55:2 57:24 58:4 82:2,5 99:2 three 7:23,23,24 7:25 25:22 26:7 38:11 42:17 43:4 49:23 63:23,23 63:25 64:2,7 64:11 69:14 89:2 108:14 112:25 114:2 throw 71:7 thumbs 76:7,7,9 76:9 77:14,16 77:18 tied 46:20 tier 43:4,18,20 44:2,4,5 45:14 49:23 64:4,15 64:15,16,19,21 65:10,15,19 66:1 67:2 112:25 tiers 43:4 64:3 64:11 65:11 tiled 84:1,2,5 110:22,23 tillings 5:18 time 8:17 15:19 17:18 24:6 26:5 44:15 60:3 61:14 64:6 65:13,22 66:22 70:15 79:1,10 80:21 96:19 102:9 108:21 115:21 115:23 117:1 118:10 timeline 8:25</p>	<p>times 44:12 63:24 66:20 68:20 75:2 82:17 97:3,7 113:22 114:8 timing 8:22 90:18 91:22 114:4 TIMOTHY 2:3 tiny 8:9 title 37:9 titled 38:18 today 16:8,12 32:14 81:7 101:12 told 42:22 78:11 104:16 Tonka 111:21 tool 26:17,17,18 26:22 top 24:12 26:12 59:12,16,19 95:15 103:20 topic 114:18 topics 93:20 total 10:5,6,8,13 21:11 91:2 touch 104:24 tower 47:10 52:11 towers 31:21 town 45:6 track 35:15 tracts 85:4 training 88:10 100:13,24 101:4 transcript 118:8 118:19 translates 27:16 transmission 1:5 13:14,25 14:4,12 15:10</p>	<p>15:13,23 16:2 16:15,24 17:6 31:21 34:2,4,7 39:10,12,19 40:7,10 53:12 54:6,12 68:4 88:14 transparent 72:23 tree 42:25 tribal 76:1 77:1 tribes 75:25 76:5 tricky 78:23 tried 53:13 111:7 trigger 6:13 triggered 42:15 triggers 6:14 true 104:22 118:7 truth 80:1,1,2 try 18:14 46:8 63:19 70:17 71:23 74:19 trying 18:12 42:5 50:21 71:19 73:15 74:4 75:1,4,8 78:5 104:3 107:17 110:5 115:13 turbine 9:7,8,9 9:13 11:15 12:8,10,15,21 13:1,5 18:17 27:22 50:5,13 65:7 67:5 71:10 73:24 82:18 92:1,13 92:17 104:10 105:4,5 108:15 turbines 10:2,5</p>	<p>10:7,14 11:16 11:21 12:1,7 17:7,11,14,16 17:18,21 18:4 18:5 31:22,23 32:2 39:3,9 46:18,20 47:17 48:4 50:3 66:13 69:10,25 70:7,17,22 71:3,11,13,16 77:3,9 85:6,14 88:11,12 89:15 89:18 90:3,6 92:2,15 94:24 95:2 99:21 100:19 101:9 102:23 106:9 106:16,16,18 106:19 108:21 111:1,18 turn 7:5,22 9:4 10:25 14:16 15:1 20:5 26:11 34:24 36:25 103:15 turning 5:18 turns 18:13 TV 42:4 twice 8:16 two 7:23,25 9:5 10:4,8,9,15,22 12:18 15:2 19:25 21:2,10 22:21 26:16 28:9 38:7 39:22 45:21 47:1,2,22 53:15 57:25 64:5 68:9 74:6 112:25 114:22 114:24 115:5 type 24:12,16,25</p>	<p>27:24 48:9 64:17 73:22 75:10 103:17 types 6:2 21:3,6 22:25 24:17 47:22 49:12 83:24 103:11 typewritten 118:7 typically 29:9 34:3 36:16 60:13,14 64:25 72:6 107:3 typo 10:11,17,24</p> <hr/> <p style="text-align: center;">U</p> <hr/> <p>U.S 32:10 35:15 42:9 44:1 51:4 61:17 65:12 66:4 68:7 75:19 81:18 83:3 84:20 92:4,17,24 93:12 94:10,15 109:10 113:7 ultimately 54:21 71:21 unanticipated 82:11 unbroken 8:1 9:8,14 10:2,7,9 10:15,18,22,24 11:2,17 12:3 12:25 13:9 uncertain 48:20 49:8 50:14 uncertainties 43:11 uncertainty 28:7,15 43:10 48:21 49:4 unclear 83:17 84:23 underneath</p>
--	--	--	---	--

Public Hearing

3/8/2019

54:1 understand 18:20 38:1 39:2,14 40:15 47:19 50:22 55:10 57:20 63:13 64:1 76:4 79:21 understanding 17:22 29:14 30:24 45:1 48:6 68:22 69:20 79:24 82:25 100:11 100:12 107:5 understands 105:2 undisclosed 12:15 unexpected 87:17 unfortunately 43:24 68:18 76:21 unfragmented 83:22 110:10 110:19,24 unhappy 48:12 unique 55:19 56:5,13,17,25 57:17 58:3 62:2 83:19 98:2,6,15,16 98:22 99:6 United 18:22 80:23 units 96:22 104:5 University 80:16,17 unpack 27:21 unpredictability 74:18	unpredictable 73:5 untilled 84:13 111:3,4 unturned 114:13 updated 15:21 15:23 16:1 94:11,16 urging 61:11 usage 93:5 USC 96:18 use 9:6 12:12 24:1,1 27:4,22 33:7 34:3 35:11 36:3 39:23 51:6 56:16 71:2 85:25 86:12,14 86:15 88:22,23 89:10,24 90:16 90:18,18,23 91:3,4,9,11,12 97:4,9 106:21 108:19 109:25 111:8,17 uses 55:11 87:20 USG 111:17 USGS 86:9 111:18 usually 29:8 64:14	vegetation 36:18 vehicle 32:11 verification 83:24 verify 68:20 69:25 versus 8:22 48:7 69:18 78:12 103:8 vice 59:19 60:14 vicinity 91:11 view 18:10 36:15,19 42:22 46:21 51:24 52:15 56:3,24 63:5 78:3 viewpoint 37:12 virtue 52:10 visibility 25:2 39:24 40:1 visible 40:10 visit 58:13 72:1 visual 38:13 vital 7:1 voluntary 19:2,6 19:14 53:5 88:9 90:9 volunteer 74:22 volunteered 85:7	111:3 wanted 45:3 111:9 wasn't 8:19 32:20 44:21,22 46:16 60:3 105:5 106:18 111:25 waste 44:15 water 19:20,20 19:25 20:10 21:4,8 waterfowl 27:18 88:20,21,25 89:2,7,21,24 90:7,9,10 94:22,23 113:17,21 114:3,23 way 14:4 16:3 22:18 24:10 29:12 35:12 48:2,11 51:14 55:4 58:11 72:20 74:7 75:15 99:11 106:9 107:18 115:13 ways 6:11 13:17 66:17 74:20 92:10 WCS 81:1,15,16 81:17 112:24 we'll 13:20,20 17:5 66:19 116:13 we're 5:2 6:14 8:8 11:4 20:11 22:21 45:17 51:8 53:24 65:16,16,18 71:19 73:14,15 73:16,17 74:4	75:1,4 78:4,5,6 78:7,8 79:2,6 102:13 113:5 114:18,22 116:4 117:1 we've 15:14 18:15,19 22:17 40:19 41:2 44:11 50:9 52:16,19 53:4 53:4,7 55:6,9 58:7,10,12,25 62:22,22,23 63:7,12,15 68:4 71:22 75:19 77:19 weather 40:1 website 45:5 wee 106:3 week 28:15 48:24 114:22 115:5 weeks 114:22,25 115:5 WEG 42:14 Wells 4:4 5:2,7 20:5 41:10,13 41:21,25 79:7 86:6 102:20 103:3 Wells' 97:18 went 28:13,14 44:20 68:8 95:4 106:20 111:19 113:8 west 2:11,19 12:15,19 13:10 70:25 71:1 80:9,11,19 91:24 western 52:13 80:8 92:24 wetland 20:1
	V	W		
	value 45:4 51:20 51:23 107:12 values 36:22 variable 114:16 114:17 variables 115:15 varied 116:6 various 21:6 22:25 41:22 varying 86:14	Wade 2:17 wait 14:20 wake 71:16 want 6:10 7:5,17 9:16 18:18 27:20 28:24 33:11 41:3,13 45:7,12 53:18 53:19,20 54:19 54:20 66:14 68:19,20 76:12 78:4 110:21		

Public Hearing

3/8/2019

Page 144

37:5,10,13,18 51:9 52:23 53:15,24,24 54:2,8,12,13 84:14,16,18,22 87:23 90:5 95:4 111:12,13 111:23 wetlands 19:16 19:18 20:9,13 20:13,16,17,19 20:20,22 21:3 21:5,9,10,18 22:25 27:5 36:7,11,17,19 36:23,24 37:22 37:24 38:6 50:24 51:11,15 51:19,22 53:13 54:5 58:19,19 58:20,22 59:5 83:22 84:4 wheat 103:16 white 11:6,9,10 12:18 13:2 100:25 101:2 whooping 35:1,6 35:25 36:3,9 36:13,20 37:4 37:11 38:16 39:4,7,11,24 40:6 51:20,23 52:12 54:10,17 55:3 69:2,16 69:21 82:7,10 85:18,20,21,22 86:3,5,10,13 86:17,21 87:1 87:3,6,11,14 87:16,25 88:2 88:5,10,11,16 92:19 93:2,4,5 95:9,18 96:21	97:1,6,13 100:4,8,10,17 100:25 101:7,9 107:23,25 108:3,8,19,25 114:10 wide 96:5,13 103:21,22 wild 70:25,25 71:1,1 wildlands 20:23 wildlife 13:19 18:23 24:5 25:9 27:6 32:10,12 33:3 33:5 35:15 41:17,18 42:9 42:23 44:2 46:9 49:12 50:4,7,25 51:7 52:10 53:8 55:24 59:22 60:10 61:16,18 62:5,17,19,20 63:11 65:13 66:4 67:16 68:8 72:11 73:1,3 75:12 75:20 80:13,19 80:25 81:1,2,3 81:8,9,13,15 81:19,21 82:1 82:7 83:4 84:14,20 85:5 85:8,14 86:12 89:10 91:25 92:5,9,18,23 92:24 93:7,12 93:13,14 94:10 94:16 99:18 101:14 102:2 106:3 107:10 107:19 108:6	109:7,11,19 110:14 113:7 Wildlife's 49:10 wildly 116:6 willing 68:2 wind 1:4,5,8,9 2:15,23 17:21 23:4,23 25:17 27:22 29:15 31:22,23 33:9 34:19 39:3,8 40:16 42:13,20 42:25 43:2 45:19,20 46:1 50:3 64:3 67:1 69:9 70:22 71:2 80:22 81:19,20 83:8 83:15,16,25 84:9,10,15,21 84:25 85:2,10 85:12,13,17 87:2,7,9,13,24 88:6,8,13,19 88:25 89:8,11 89:15,20,22,23 90:8,21 91:14 91:19 93:13,16 93:21 99:16 105:24 106:3 108:13 111:20 111:21 113:2 Wind's 81:25 82:14 wind-wildlife 80:20 winds 70:19 winter 91:1,6,12 wish 76:19 withdrawn 72:12 witness 1:15 4:2 28:19 41:12,14	79:8,15 117:9 117:11 witnesses 116:21,21 117:3 Wmann@cro... 2:22 wondering 14:24 69:6 woodlands 24:25 58:19,21 woody 21:4,9 words 106:5 work 35:12 57:15 59:17 63:22 74:20 75:25 80:8 89:1,9 100:7 107:9,10 112:19 worked 58:7 63:12 78:17 80:19 112:11 working 5:21 8:8 15:14 42:23 81:13 102:1,23 107:5 110:8 works 66:19 world 114:17 worst 72:3 wouldn't 5:20 58:5 62:21 63:9 97:11 104:20 wow 102:3 105:4 written 14:20 43:3 wrong 54:6 WSC 81:19 Wyoming 80:17	X 4:1 <hr/> Y <hr/> yeah 14:24 15:25 25:25 26:2 48:8 55:16 56:11 67:9 94:4 98:23 99:9 100:23 102:4 104:22 year 15:12 16:10 24:2 28:15 31:7,9 40:14 48:24 60:5,5 74:6 101:19 102:10 114:15 116:1 years 42:17 80:21 81:12 87:9 96:19 108:14 109:8 110:8,9 yellow 11:6 12:9 12:19 33:18 38:6 Yep 37:3 yesterday 110:2 <hr/> Z <hr/> zero 63:6 zillow.com 45:5 zone 71:17 98:24 zones 72:13 zoology 80:17 <hr/> 0 <hr/> 0.5 30:21 <hr/> 1 <hr/> 1,000 94:18 1,000ish 94:24 1:30 1:17
---	--	--	---	---

Public Hearing

3/8/2019

<p>10 23:19 32:15 53:16 66:24 84:4 100 1:20 2:11,19 4:9 116:3,6 105 116:4 109 80:10 119 118:6 12 90:17 12.8 30:24 1200 14:8 122 3:6 130 118:14 14 20:6,8,8,18 21:12 30:18 14,000 108:16 15 19:11 79:2 81:12 110:9 112:17 16 25:25 26:9 96:25 97:1,1,6 97:6 17 34:25 35:2,5 95:8,12 102:5 18 84:1 103:21 1st 23:7,18</p> <hr/> <p style="text-align: center;">2</p> <hr/> <p>2 1:15 15:2,3,25 2.2 23:11,13 20 29:15,24 30:13,20 89:17 90:2 94:22,24 103:21 104:12 104:15 112:17 200 8:21 29:18 30:11,17,19,20 33:16,21 46:8 46:24 61:10 68:9,15 70:6 70:15 91:3 93:15 94:6 102:8 2016 42:11 44:3</p>	<p>60:2 65:21 102:5 2017 23:7,18 25:25 26:9 29:1 2018 8:5 17:15 18:24 26:3,11 46:17 83:7 91:18 94:4,15 112:20 2019 1:16 8:6 19:3,12 85:9 93:12 94:11,17 118:17 21 84:3 89:17 90:2 94:22 22 26:3,10 94:4 94:15 22nd 23:6,17 93:18 23rd 118:17 24 80:20 247.13 70:16 25 29:20,21 30:4 250 2:11,19 26th 23:7,18 27 36:25 37:2,3 73:11,11 86:6 29 23:11</p> <hr/> <p style="text-align: center;">3</p> <hr/> <p>3,300 26:24 94:1 3.0 7:8,13,19 3:09 79:1 30 8:23 80:22 106:17,17,20 112:11 300 30:17 33:17 46:8,23 61:10 68:8,13 70:6 93:15 94:5 106:9 31 8:6 19:3 84:1 112:13</p>	<p>32 112:13 37 33:24,25</p> <hr/> <p style="text-align: center;">4</p> <hr/> <p>4 20:7 4.10 21:9 4.7 21:8 4:40 117:1 40 84:18 111:11 400 14:7 4007 80:10 42 84:21 45 94:12 46 9:16,23 10:3 10:6 19:12 28:17 47 28:18</p> <hr/> <p style="text-align: center;">5</p> <hr/> <p>5 4:5 23:7,18 5% 96:8 5.8 8:3 9:2 5:00 74:14 110:1 50 21:1 84:5 106:8 50% 110:22,25 500 87:3 108:8 51 118:5,14 52 9:9 11:15 12:10 53 12:8 54 9:9 11:21 12:1 55 9:9 11:22 12:2 17:14 46:18 47:17 48:4 70:7 55% 106:8 56 11:22 12:2 57 11:22 12:2 58102 118:15 58501 3:7 58502 2:12,20 58721 1:21</p>	<p>59 12:9</p> <hr/> <p style="text-align: center;">6</p> <hr/> <p>6 15:2,6 37:4,6 85:9 93:12 94:11,17 60 12:9 106:17 60% 106:17,20 600,000 87:5 108:18 61 12:9 65 9:9 12:21 13:1 67 9:9 6B 15:3 6th 109:10</p> <hr/> <p style="text-align: center;">7</p> <hr/> <p>7 10:4 83:12 701-224-7554 2:13,21 701-258-0630 3:8 71 9:9 13:5,11 13:12 75 35:10,23 86:7 95:17 96:6,8,9 98:12 107:25 75% 95:25 96:2 97:15 76 10:1 111:4 7th 109:20</p> <hr/> <p style="text-align: center;">8</p> <hr/> <p>8 1:16 38:18 80 4:8 7:7,11 35:11 96:9 104:12,15 80% 96:1,8 85 35:11 96:1 111:12 85% 96:10</p> <hr/> <p style="text-align: center;">9</p> <hr/>	<p>90 35:11 96:1 90s 116:1 95 35:11 95% 96:1,10 95th 96:10</p>
--	---	---	--	---