U.S. Fish and Wildlife Service

Issuance of an Eagle Take Permit for Courtenay Wind Farm, North Dakota

Finding of No Significant Impact

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Table of Contents

I. Introduction 1

II. Background 1

III. Alternatives Considered 2

Introduction 2

Offsetting Compensatory Mitigation 2

Alternative 1: The Service does not issue a Programmatic ETP for the Project (No Action) 3

Alternative 2: The Service issues a 5-Year Programmatic ETP based on the Applicant's ECP (Proposed Action) 3

Comparison of Effects of Alternatives 4

Evaluation of Alternatives 4

Selected Alternative 5

IV. Effects of Implementation 5

Eagles 5

Risk Estimate 5

Cumulative Effects 6

Conclusion 6

Native American Cultural Values 7

V. Public Comment 7

VI. Eagle Take Permit Issuance Criteria 7

Required Determinations 7

VII. Significance Criteria 9

Context 10

Intensity 10

Bald Eagles 13

Findings 15

VIII. Conclusions 16

IX. Literature Cited 17

Attachments

Attachment 1: Environmental Assessment for the Issuance of an Eagle Take Permit for Courtenay Wind Farm

I. Introduction

This Finding of No Significant Impact (FONSI) addresses the issuance of a programmatic eagle take permit (ETP) pursuant to the Bald and Golden Eagle Protection Act (Eagle Act) (16 United States Code [U.S.C.] 668-668d) and its 2009 implementing regulations (50 Code of Federal Regulations [C.F.R.] 22.26) to Northern States Power Company – Minnesota, doing business as Xcel Energy (Applicant). The Applicant seeks a permit under the Eagle Act for the Courtenay Wind Farm (Project), located in Stutsman County, North Dakota. The Project consists of 100 wind turbines with associated infrastructure and has been operating since December 1, 2016.

In accordance with the National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321 et seq.) and its implementing regulations (40 C.F.R. Part 1500 and 43 C.F.R. 46.300), and United States Fish and Wildlife Service (Service) NEPA requirements (516 DM 1-4, 8), the Service prepared an Environmental Assessment (EA) analyzing the impacts to the human environment associated with permit issuance (*Environmental Assessment for the Issuance of an Eagle Take Permit for Courtenay Wind Farm*) based on the Project's Eagle Conservation Plan (ECP) (Tetra Tech Inc. 2016) (Attachment A in the EA). The EA analyzed two alternatives, not issuing the permit (the No Action Alternative or Alternative 1) or issuing the permit (the Proposed Action Alternative or Alternative 2). The EA (USFWS 2018) is incorporated by reference into this FONSI and provided as Attachment 1. Permit issuance will authorize bald eagle take that is incidental to otherwise lawful operational activities described in the Project ECP.

The EA and ECP detail the impacts of the incidental take on bald eagles and how these impacts will be avoided and minimized. ETPs may be issued only in compliance with the preservation standard of the Eagle Act. This means that to consider permit issuance, we must determine whether the take is compatible with the preservation of bald eagles, defined as "consistent with the goal of stable or increasing breeding populations" (74 *Federal Register* [FR] 46836; September 11, 2009). The EA evaluated two alternatives, based on the ability of the alternatives to meet our purpose and need, and the associated impacts to the human environment.

Upon review of the EA, the Service concludes that a FONSI is appropriate. Following review, analysis, and evaluation of public comments, the Service has chosen to issue a permit for activities under our Alternative 2, which is the Proposed Action described in the EA.

II. Background

The EA analyzes the effects of our proposed issuance of a 5-year programmatic ETP on the human environment and evaluates impacts over the 30-year duration of the Project. The analysis focuses on potential take of bald eagles by the operation of the Project.

The Service developed the *Eagle Conservation Plan Guidance Module 1: Land-based Wind Energy, Version 2 (ECP Guidance,* USFWS 2013) to provide recommendations for the development of ECPs in support of issuance of programmatic ETPs for wind facilities. The ECP Guidance is intended to assist industry in avoiding and minimizing impacts to eagles that may result from site selection, construction, operation, and maintenance of land-based, wind energy

facilities. The ECP Guidance provides recommendations for a staged approach to site evaluation, and development of an ECP with the Service.

On April 11, 2016, the Service received a permit application package, which included the Project's ECP, from the Applicant for a 5-year programmatic ETP for the 100 wind turbine (200.5 megawatt) Project. Applicants who submitted permit applications before July 14, 2017, may choose to have their permit applications considered under either the original 2009 regulations or the 2016 revised regulations. The Applicant has chosen to submit its ETP application under the 2009 regulations. As such, the EA evaluated impacts to the human environment resulting from issuance of an ETP under the 2009 eagle regulations. Pursuant to the "high quality" information standards of the NEPA regulations (40 C.F.R. 1500.1(b)), the EA also incorporated by reference the best available science, specifically updated population estimates and other information pertaining to eagles documented in the *Bald and Golden Eagles: Population demographics and estimation of sustainable take in the United States, 2016 update* (USFWS 2016a) and the *Programmatic Environmental Impact Statement for the Eagle Rule Revision* (PEIS; USFWS 2016b).

III. Alternatives Considered

Introduction

The EA considered alternatives for issuance of a permit to take bald eagles at the Project. The EA analyzed the effects of our proposed issuance of a 5-year programmatic ETP on the human environment and evaluates impacts over the 30-year duration of the Project. The analysis focused on bald eagles because no golden eagles were observed during any pre-construction eagle use surveys; therefore, it was not necessary to analyze impacts to golden eagles.

NEPA requires Federal agencies to develop, study, and briefly describe alternatives to any proposed action with the potential to result in unresolved resource conflicts, 16 U.S.C. 4332(2)(E). This is also consistent with CEQ NEPA implementing regulations (40 C.F.R. Part 1500 and 43 C.F.R. 46.300), and Service requirements (516 DM 1-4, 8).

The EA evaluated a No-Action Alternative (Alternative 1) and one action alternative (the Proposed Action, Alternative 2). The following is a brief description of the two alternatives considered. For a complete description of the alternatives, as well as alternatives that were considered but not evaluated further, see Chapters 2.1 and 2.2 of the EA (Attachment 1, pages 10-12).

Offsetting Compensatory Mitigation

The Service has determined that compensatory mitigation targeted to offset permitted mortality is not required for the Project (USFWS 2009a, USFWS 2009b, USFWS 2016a). The ECP Guidance states that if eagle populations are not healthy enough to sustain additional mortality, applicants must reduce the unavoidable mortality to meet the no-net-loss standard (USFWS 2013). After removal of bald eagles from the Endangered Species Act list in 2007, occupied bald eagle nesting territories increased by 138 territories in the Rocky Mountains and Plains Eagle Management Unit (EMU) and by 2,427 in the Great Lakes EMU as of 2009 (USFWS

2016a). The Service inferred a corresponding increase in population. As explained more fully below, the predicted eagle take for the Project, one bald eagle per year for five years, is not expected to exceed that which can be sustained by the population at the EMU level. Furthermore, the predicted take is not expected to exceed the 5% take threshold within the local area population (LAP). As explained in the EA, the LAP consists of an 86-mile radius around the Project and is based on the median natal dispersal distance of bald eagles (USFWS 2016a). To summarize, relevant eagle populations are healthy enough to sustain the mortality contemplated by the Project.

Alternative 1: The Service does not issue a Programmatic ETP for the Project (No Action)

Under Alternative 1 (No Action), the Service would take no action, which means denying the Applicant's request for a programmatic ETP for operation of the Project. The Service would not issue an ETP. The Applicant is not legally required to have an ETP to continue operating the Project; however, any take of eagles at the Project in the future would not be authorized under the No Action Alternative. As a result, any eagle take that occurred would be illegal, and the Applicant would assume all legal liability for operating the Project without an ETP. Without an ETP, the Applicant is not legally obligated to implement continued mortality monitoring or the adaptive management identified in the ECP.

Choosing Alternative 1 (No Action) is a potential outcome of the permit review process. In addition, analysis of the No Action Alternative is required by CEQ regulations (40 C.F.R. §1502.14) and provides a baseline against which to compare the environmental impacts of the Proposed Action. We can deny an ETP because the permit application failed to meet one or more of several issuance criteria under 50 C.F.R. §22.26 or because the risk to eagles is so low that an ETP is unnecessary.

Alternative 2: The Service issues a 5-Year Programmatic ETP based on the Applicant's ECP (Proposed Action)

Under Alternative 2 (Proposed Action), we would issue a five-year programmatic ETP allowing for the non-purposeful take of up to five bald eagles over five years, with associated permit conditions, as allowed by 50 C.F.R. §22.26(f) under the 2009 regulations. We used our Collision Risk Model (CRM) to estimate the number of annual bald eagle fatalities resulting from the Project operation and maintenance [Chapter 4.2.2 of the EA (Attachment 1, pages 24-26)] . The programmatic five-year ETP would include specific permit conditions, including implementation of the BMPs, monitoring, reporting, and adaptive management, as discussed in the ECP, Attachment A of the EA, Sections 8.0 through 10.0 (pages 38-56).

The ETP is issued for five years. The permit would apply to the operation of all 100 turbines and ongoing operation of site infrastructure, effective immediately upon issuance of the permit. At the end of the five-year permit term, the Applicant may choose to apply for a new permit under the regulations in place at that time.

Comparison of Effects of Alternatives

The following table compares the effects of the No Action and the Proposed Action.

	Alternative 1 – No Action	**Alternative 2 – Issue 5-Year Programmatic ETP based on Applicant's ECP (Proposed Action)**
Eagle Take Levels	5 bald eagles over 5 years	5 bald eagles over 5 years
Fatality Monitoring		
Number of Years	None	2
Turbines searched	None	100% (100 turbines)
Search Interval	None	Monthly (28 day interval)
Data Collected by Service	None	Annual monitoring report of fatalities; reporting of eagle injuries or mortalities; information on the effects of specific, applied, conservation measures
Adaptive Management Strategy	Not implemented	Experimental Advanced Conservation Practices (EACPs[1]) implemented according to Table 12 in the ECP
Company Liability for Eagle Take	Yes	No (if in compliance with all permit conditions)

[1] We incorporated adaptive management as part of our consideration of the ETP for the Project because of the challenges and uncertainties associated with avoiding, minimizing, and mitigating the take of eagles. Therefore, we have proposed an adaptive management framework by which avoidance and minimization measures and Best Management Practices, including what the 2009 regulations termed "advanced conservation practices" (ACPs) can be applied to this Project to address long-term effects. The 2009 regulations defined ACPs as "scientifically supportable measures that are approved by the USFWS and represent the best available techniques to reduce eagle disturbance and ongoing mortalities to a level where remaining take is unavoidable" (50 C.F.R. 22.3). Because we have not approved any ACPs for wind energy projects, ACPs issued pursuant to the 2009 regulations are implemented at wind energy facilities on an experimental basis and are referred to as experimental ACPs.

Evaluation of Alternatives

The EA evaluated potential impacts that could result from the issuance of the ETP based on the Project ECP. The EA was developed to assist us in evaluating effects on the human environment and in assessing the significance of the impacts that could result from the alternatives. "Significance" under NEPA is defined by regulation at 40 CFR 1508.27, and requires short-term and long-term consideration of both the context of a proposal and its intensity. As required by NEPA, all alternatives must undergo an equal level of analysis, and the final proposal may include all or some components of a single alternative, or it may include a combination of components from more than one alternative.

Selected Alternative

The Selected Alternative for this action is Alternative 2 (issuance of an ETP) of the EA, as described below and summarized in Table 1 above.

IV. Effects of Implementation

As described in the EA, implementing the Selected Alternative would have no significant impacts on any of the environmental resources identified in the EA. Our Selected Alternative is consistent with our purpose and need as stated in the EA. A brief summary of the impact analysis and conclusions in the EA follows.

Eagles

In determining the significance of effects of each alternative on bald eagles, we screened both alternatives against the Eagle Act's Permit Issuance Criteria under 50 C.F.R. 22.26 using quantitative tools available in our ECP Guidance (USFWS 2013). We also used updated population estimates and other information pertaining to eagles documented in the *Bald and Golden Eagles: Population demographics and estimation of sustainable take in the United States, 2016 update* (USFWS 2016a) and the *Programmatic Environmental Impact Statement for the Eagle Rule Revision (*USFWS 2016b).

Under our 2009 regulations, the Service has interpreted the conservation standard of the Eagle Act to require maintenance of stable or increasing breeding populations of eagles (74 FR 46836; September 11, 2009). The Service independently evaluated the potential impacts from Project operations along with the implications for direct, indirect, and cumulative effects. We developed conservative risk estimates for the Project and our cumulative effects analysis to be protective of the species.

Risk Estimate

In the ECP Guidance (USFWS 2013), we provided a mathematical model that estimates fatality risk at wind project sites. The model relies on a logical assumption that there is a positive relationship between the number of minutes eagles are present in the air near turbines, the number of turbines, and the risk of collisions by eagles. The results of the model estimate the possible number of fatalities per year at the Project site. Under the Selected Alternative, we estimate that up to five bald eagles will be taken over the duration of the 5-year permit. The predicted take of bald eagles conservatively estimates impacts on eagles. We have purposefully used these estimates to be protective of eagles (i.e., such that actual take does not exceed authorized actual take at individual projects or across the population). The mortality monitoring requirements under the Selected Alternative will allow us to evaluate the Project's risks and provide statistically meaningful results.

Cumulative Effects

To evaluate cumulative impacts for the LAP, we followed the guidance provided in Appendix F of the ECP Guidance (USFWS 2013). Utilizing this process, we estimated annual bald eagle fatality rates within an 86-mile (134-kilometer) radius around the Project. This analysis included available data from areas of the Great Lakes and the Rocky Mountains and Plains Eagle Management Units (EMUs). We developed this conservative estimate of population-level effects to be protective of the species.

There are approximately 73 bald eagles that occur within the LAP. The 1% and 5% thresholds for this LAP are about one and four bald eagles per year, respectively (EA, Table 4, page 30). The Service has concluded that take thresholds of between 1% and 5% of the estimated total bald eagle population size at this scale as not significant, with 5% being at the upper end of what might be appropriate under the Eagle Act preservation standard (USFWS 2016b). We also assessed the level of take for the LAP using available records of unpermitted take of bald eagle mortality for the years 2009 to 2018 (the time interval selected for the LAP analysis) as described in the EA (Section 4.3.2, pages 33-34). The Service has established take limits for bald eagle populations by EMU in the Final Environmental Assessment (FEA) for the 2009 Eagle Act take regulations and these were revised in the PEIS. For the Rocky Mountains and Plains EMU the annual take threshold is 127 bald eagles per year and for the Great Lakes EMU the annual take threshold is 2,195 bald eagles per year (USFWS 2016b). The predicted take of bald eagles at the Project is one bald eagle per year. Therefore, the annual population effects in the Rocky Mountains and Plains EMU and the Great Lakes EMU (USFWS 2009) would be well below the corresponding take threshold.

As discussed in the EA (Attachment 1, Chapter 4.3.2, pages 29-31), the Service's objective is to manage the species by authorizing take at a level that is less than 5% of the LAP. In the LAP, five permits have been issued for bald eagle disturbance take. The current permitted take of bald eagles existing within this LAP combined with the estimated take for the Project is 1.86 eagles per year or about 2.5% of the LAP. Hence, this level of cumulative take would exceed the 1% benchmark for the LAP, but not the 5% benchmark. The Service will continue to encourage measures to reduce mortality from the sources identified in the EA, including those identified for the Project. The adaptive management strategy and associated EACPs outlined in the Applicant's ECP are intended to minimize ongoing take at the facility.

Conclusion

The incremental effect of the operational Project on bald eagles is small. The predicted take at the Project is well below the maximum allowable cumulative take for the EMU. Therefore, while small changes in the local population may impact bald eagles at the LAP level they are not expected to impact the species at the EMU population level. Because the Applicant may reduce the amount of actual take (compared with our take estimates for the Project) through the

implementation of EACPs, we have determined there would be no significant adverse cumulative effects to bald eagle populations by issuing an ETP to the Project proponent.

Native American Cultural Values

To address the effects of bald eagle take on Native American cultural practices, we assessed whether the alternatives would impact the religious and cultural significance of eagles to tribal communities. We invited 38 tribes to participate in government-to-government consultation regarding this action. The Service contacted tribes that have articulated an interest in the permitting process and all tribes with lands that fall within the Rocky Mountains and Plains EMU and the Great Lakes EMU. In response, the Lower Sioux Indian Community, Tribal Historic Preservation Officer provided comments requesting careful, culturally sensitive evaluation and assessment of the "immediate need" of the Applicant's request and requesting operational measures to avoid or mitigate eagle impacts. The Southern Ute Indian Tribe requested additional information related to eagle use at the Project and known impacts to eagles related to Project operations. On September 28, 2018, the Service responded to the Southern Ute Tribe's request for additional information. No additional information requests were received from the Southern Ute Indian Tribe.

Cumulative effects from the Selected Alternative will not result in regional population declines as the take of bald eagles at the Project is expected to be below the sustainable take threshold for both the Rocky Mountains and Plains EMU and the Great Lakes EMU. In addition, the Service will review take thresholds in the EMUs on a regular basis relative to bald eagle population and demographic parameters, and will modify or adjust permitting accordingly. If there is evidence that demand for permitted bald eagle take will exceed take thresholds for the EMUs, the regional structured-allocation process will ensure that authorized take necessary to meet the religious need of a Native American Tribe will not be denied due to other take being authorized for another purpose (USFWS 2009a). Also, programmatic ETPs issued will include permit conditions to ensure all recoverable eagle remains, parts, and feathers are sent to the National Eagle Repository and could then be used for Native American cultural and religious purposes.

V. Public Comment

The Service published a Notice of Availability of the Draft EA in the FR on May 17, 2018 (Docket Number FWS-R6-MB-2107-N185), opening a 30-day comment period, which ended on June 18, 2018. Twenty comments were received. Comments received were composed of general statements of support or opposition to the Project, and comments concerning information that was already included in the document. Therefore, no changes were made to the EA in response to comments.

VI. Eagle Take Permit Issuance Criteria

Required Determinations

In consideration of this 5-year permit, we evaluated the Selected Alternative's ability to meet the required determinations of the permit issuance criteria identified in the Eagle Act's 2009

permitting regulations (see 50 C.F.R. 22.26(f)). Under the 2009 regulations, the Service may not issue a permit unless the following issuance criteria are met:

1) *The direct and indirect effects of the take and required mitigation, together with the cumulative effects of other permitted take and additional factors affecting eagle populations, are compatible with the preservation of bald eagles and golden eagles.*

The Service's objective is to manage bald eagles by authorizing take at a level that is less than 5 percent of the LAP. For this Project, the existing permitted take of bald eagles within the LAP combined with the estimated take for the Project LAP is 1.86 bald eagles per year or about 2.5% of the LAP. Hence, this level of take would exceed the 1% benchmark for the Project LAP, but not the 5% benchmark, and therefore is compatible with the preservation of bald eagles. No take of golden eagles is anticipated, nor will take of golden eagles be authorized by this permit. Based on our 2009 eagle take regulations (USFWS 2009b), the 2009 FEA (USFWS 2009a), and our ECP Guidance (USFWS 2013), we have determined that compensatory mitigation to offset permitted mortality of bald eagles is not required for the Project. The direct and indirect effects of take, together with cumulative effects of permitted take, are compatible with the preservation of bald eagles.

2) *The taking is necessary to protect a legitimate interest in a particular locality.*

The Project is an operational wind facility that previously received other state and federal environmental compliance authorizations. The Applicant is seeking an ETP to comply with the Eagle Act as they anticipate some unintentional take of bald eagles will occur due to Project operations. The Service has determined that the taking is necessary to protect a legitimate interest in a particular locality.

3) *The taking is associated with, but not the purpose of, the activity.*

The purpose of the Project is to collect and deliver renewable energy to the Midcontinent Independent System Operator power grid. The Service has determined that unintentional take of bald eagles is associated with, but not the purpose of the Project.

4) *The taking cannot practicably be avoided; or for programmatic authorizations, the take is unavoidable.*

Our ECP Guidance (USFWS 2013) states:

> *"Because the best information currently available indicates there are no conservation measures that have been scientifically shown to reduce eagle disturbance and blade-strike mortality at wind projects, the USFWS has not currently approved any ACPs for wind energy projects.*
>
> *The process of developing ACPs for wind energy facilities has been hampered by the lack of standardized scientific study of potential ACPs. The USFWS has determined that the best way to obtain the needed scientific information is to work with industry to develop ACPs for wind projects as part of an adaptive-*

management regime and comprehensive research program tied to the programmatic-take-permit process."

Accordingly, the ECP and the Selected Alternative includes an adaptive management framework for which EACPs can be applied to this Project to address long-term effects (see ECP, Section 9.0). The Service has determined that the take is unavoidable.

5) *The applicant has avoided and minimized impacts to eagles to the maximum extent practicable, and for programmatic authorizations, the taking will occur despite application of ACPs.*

See answer to #4 above. Additionally, during the planning process, the Project design was revised to avoid and minimize impacts to eagles as identified in the ECP (see Section 6.0) and in the EA (Chapter 4.4.2). The Service has determined that the applicant has avoided and minimized impacts to the maximum extent practicable and the taking will occur despite application of the EACPs.

6) *Issuance of the permit will not preclude issuance of another permit necessary to protect an interest of higher priority according to the following prioritization order:*

(1) Safety emergencies;

(2) Native American religious use for traditional ceremonies that require eagles be taken from the wild;

(3) Renewal of programmatic take permits;

(4) Non-emergency activities necessary to ensure public health and safety; and

(5) Other interests.

The Service has determined that issuing this permit is compatible with the preservation of the bald eagle (i.e., consistent with the goal of stable or increasing breeding populations). In December 2016, USFWS published the *Programmatic Environmental Impact Statement for the Eagle Rule Revision* and on December 16, 2016, the USFWS published its final changes to eagle permitting regulations (USFWS 2016b, 81 FR 91494), which took effect on January 15, 2017. Subsequent permit applications will be processed under the current regulations at the time of application (instead of being renewed under 2009 regulations), at which time the LAP and EMU take limits will be evaluated for these applications. Under these revised regulations, the EMUs were expanded to be at the scale of the migratory bird flyways, instead of the smaller EMUs defined under 2009 regulations and evaluated in this EA. Therefore, issuance of this permit will not preclude our ability to issue permits needed to protect an interest of higher priority.

VII. Significance Criteria

The Selected Alternative will not have a significant effect on the human environment. This conclusion is based on the following analysis of the significance criteria as defined in 40 C.F.R. Section 1508.27 and as summarized in the EA.

Context

NEPA requires the consideration of the significance of an action in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend on the effects in the locality rather than in the nation as a whole. Both short- and long-term effects are relevant per 40 C.F.R. 1508.27(a). For purposes of analyzing the Selected Alternative (EA Alternative 2), the Service is required to consider effects of take permits on eagle populations at three scales: (1) the EMU, (2) local area (LAP), and (3) project area (defined as the Project footprint and an associated 10-mile buffer) (50 C.F.R. 22.26 (f)(1)). This is appropriate because the biologically-based bald eagle take thresholds for permitting under these 2009 regulations are based on regional populations (USFWS 2009a, 2009b). The context of the Selected Alternative points to no significant environmental impact considering the following (as discussed in Attachment 1, EA Chapter 4.2, pages 23-27):

- The Applicant may reduce the actual amount of bald eagle take (compared with our take estimates for the Project) through the implementation of adaptive management. This will ensure that the impacts of issuing a programmatic ETP to the Project on the local and regional bald eagle populations will be less than significant.
- Issuance of an ETP to the Project would have no significant adverse effects on environmental resources or values at the local or regional scale.
- Issuance of an ETP to the operational Project, including the take of bald eagles anticipated under the permit, is not expected to interfere with tribal cultural practices and ceremonies related to eagles, or to affect the ability to utilize eagle feathers. If eagles are incidentally taken by the Project, they will be sent to our Repository and distributed to tribes for their use. Under the Selected Alternative, the required post-construction monitoring should ensure all eagle remains are found in a timely manner. This may facilitate an efficient distribution to tribes.

Intensity

The term "intensity" refers to the severity of a proposed action's impact on the environment. In determining the intensity of an impact, NEPA regulations direct federal agencies to consider ten specific factors, each of which is discussed below in relation to the Selected Alternative for the Project.

1) Impacts can be both beneficial and adverse and a significant effect may exist regardless of the perceived balance of effects.

While consideration of the intensity of project impacts must include analysis of both beneficial and adverse effects, only a significant adverse effect triggers the need to prepare an Environmental Impact Statement (EIS) (40 C.F.R. 1508.27). The potential beneficial effects and adverse impacts of the Selected Alternative are discussed briefly below.

Beneficial Effects. The Selected Alternative includes implementation of the ECP and EACPs, which includes mortality monitoring that will benefit the Service's understanding of mortality of bald eagles at the Project. Our analysis is in comparison to the No Action Alternative under which the Project continues to operate without any ETP requirements or EACP commitments. Issuance of this permit will allow the Project to operate in compliance with the Eagle Act should eagle take occur, while also providing the Service with valuable data from monitoring requirements.

Adverse Effects. As described in the EA, the Applicant has worked with the Service in development of the ECP to ensure that it contains commitments to avoid and minimize adverse effects on eagles. The Selected Alternative incorporates these measures. Even so, birds, including eagles, can be injured and killed by collision with wind turbines. The Project's ECP describes commitments to avoid and minimize impacts to eagles. Eagle mortality will be monitored and an adaptive management plan will be implemented to address impacts as operational data are gathered.

In summary, the analyses in the EA and implementation of the measures identified in the Selected Alternative (including those in the ECP) support the conclusion that the Selected Alternative will not have a significant effect on the quality of the human environment.

2) The degree to which the selected alternative will affect public health or safety.

As discussed in Chapter 1 of the EA, the proposed action is issuance of a programmatic ETP for the Project. This action will have no effect on public health or safety.

3) Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farm lands, wetlands, wilderness, wild and scenic rivers, or ecologically critical areas.

The Service only evaluated whether or not to issue an ETP to the Applicant, thus, only potential impacts to bald eagles and effects of bald eagle take on cultural practices were considered in the EA analyses. As the Service is only evaluating whether to issue an ETP for the existing Project's operational activities, the Service has concluded that a number of resources would not be impacted by the Proposed Action or No Action alternatives These include: air quality, climate change, environmental justice, land use, fisheries, geology and soils, human health and safety, noise, social and economic values, surface waterbodies and floodplains, vegetation, visual resources, wetlands, migratory birds, bats, and other wildlife. Thus, these resources were not evaluated in the EA. Issuance of a programmatic ETP to the Applicant would have no further impact on these resources.

4) The degree to which the effects on the quality of the human environment are likely to be highly controversial.

No effects of the Selected Alternative were identified as being highly controversial. As a factor for determining within the meaning of 40 C.F.R. 1508.27(b)(4) whether to prepare a detailed EIS, controversy is not equated with the existence of opposition to a use. The NEPA implementation regulations (43 C.F.R. 46.30) define controversial as "a

circumstance where a substantial dispute exists as to the environmental consequences of the proposed action and does not refer to the existence of opposition to a proposed action, the effect of which is relatively undisputed." Comment letters we received on the EA provided no expert scientific evidence supporting claims that the Project will have significant effects, or that it is highly controversial. The Service has determined that the Selected Alternative will not have significant effects on the quality of the human environment nor is it likely to be highly controversial.

5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

The ECP prepared for the Project was developed to address any uncertainty regarding impacts. The Selected Alternative requires a rigorous mortality monitoring design to reduce uncertainty regarding impacts to eagles. Post-construction mortality monitoring will be conducted at 100 percent of the turbines monthly for two years. The Service believes this level of monitoring, at a minimum, will help ensure eagle take events are detected. Based on the results of this fatality monitoring, and in coordination with Service, fatality monitoring will continue throughout the life of the Project at a number of turbines and frequency of occurrence as agreed to by the Applicant and the Service.

The adaptive management process will further reduce and monitor potential impacts to eagles from operation of the Project. Issuance of the permit and the implementation of the ECP will also reduce impacts to avian and bat populations.

Additionally, we did not identify predicted effects to any other environmental resources or values from operation and maintenance of the Project that are highly uncertain or involve unique or unknown risks.

As a result, the Service has determined that there are no predicted effects of the Selected Alternative on the human environment that are considered to be highly uncertain or involve unique or unknown risks.

6) The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

Issuance of a programmatic ETP to the Project does not set precedent for, or automatically apply to other ETP applications the Service is reviewing or could review in the future. Each permit request will be evaluated on a case-by-case basis. Therefore, the Selected Alternative does not establish precedents for future actions or represent a decision in principle about a future action. Moreover, this Project will not limit the Service's discretion to impose additional conditions on processing future ETP applications under the Eagle Act's permitting regulations.

7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts-which include connected actions regardless of land ownership.

Bald Eagles

We evaluated cumulative effects on bald eagles as required by NEPA (C.F.R. 1508.8) and the Eagle Act's permitting regulations. Under 50 C.F.R. 22.26 (f)(1), when reviewing a permit application, the Service is required to consider effects of take permits on eagle populations at three scales: (1) the EMU, (2) local area, and (3) project area. Our evaluation also considers cumulative effects. We incorporated project area data provided by the Applicant, other data on mortality at wind farms and electric utilities, and additional information on population-limiting effects in our eagle cumulative impact assessment.

The Service used the bald eagle use survey data, collected at the project area scale, among other data inputs to inform the CRM, which provides a predicted estimate of the number of annual bald eagle fatalities that could occur at the Project associated with the wind turbines (see Attachment 1, Chapter 4.2.2, pages 23-25). The annual fatality estimate is 0.922 bald eagles per year at the 80^{th} upper credible interval. As discussed in the LAP, EMU, and cumulative effects analysis contained with the EA (see Attachment 1, Chapter 4.3.2, pages 29-31), the Service's objective is to manage the species by authorizing take at a level that is less than 5 percent of the LAP and not to exceed the take threshold in the corresponding EMUs. In the LAP, five permits have been issued for bald eagle disturbance take. The current permitted take of bald eagles existing within this LAP combined with the estimated take for the Project is 1.86 eagles per year or about 2.5% of the LAP. Hence, for the LAP for the Project this level of take would exceed the 1% benchmark, but not the 5% benchmark. The Service has established take limits for bald eagle populations by EMU in the Final Environmental Assessment (FEA) for the 2009 Eagle Act take regulations and these were revised in the 2016 PEIS. For the Rocky Mountains and Plains EMU the annual take threshold is 127 bald eagles per year and for the Great Lakes EMU the annual take threshold is 2,195 bald eagles per year (USFWS 2016b). The predicted take of bald eagles at the Project is one bald eagle per year. Therefore, the annual population effects in the Rocky Mountains and Plains EMU and the Great Lakes EMU (USFWS 2009) would be well below the corresponding take threshold. Therefore, there are no significant adverse cumulative effects contributed by the Project under the Selected Alternative.

8) The degree to which the action may adversely affect districts, sites, highways, structures, or other objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.

The National Historic Preservation Act (NHPA) of 1966 (Public Law 89-665; 54 U.S.C. §300101 et seq.) seeks to preserve historical and archaeological resources by imposing procedural requirements on federal agencies contemplating decisions affecting historic resources. The act created the National Register of Historic Places (NRHP), the list of National Historic Landmarks, the Advisory Council on Historic Preservation (ACHP) and the State Historic Preservation Offices (SHPO) and Tribal Historic Preservation

Offices (THPO) to minimize potential harm and damage to historic properties. Among other things, the act requires federal agencies to evaluate the potential impact of all federal undertakings on historic properties through a process known as Section 106 review. The evaluation process requires information gathering, analysis and consultation with parties interested in or affected by a federal agency's decision. Historic properties are defined as "any prehistoric or historic district, site, building, structure or object included in, or eligible for inclusion in the National Register of Historic Places maintained by the secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register Criteria", 36 CFR §800.16 (l)(1). Some tribes and tribal members may consider eagle nests and other areas where eagles are present to be sacred sites provided for in the American Indian Religious Freedom Act of 1978 (42 U.S.C. 1996). Such sites may also be considered properties of traditional religious and cultural importance to an Indian Tribe (commonly referred to as Traditional Cultural Properties or TCPs), and as potential historical properties of religious and cultural importance of NHPA. Section 106 also requires government-to-government tribal consultation "with any Indian tribe or …that attach religious and cultural significance to historic properties that may be affected by an undertaking." 800.2(c)(2)(B)(ii).

Tribal consultation is an integral part of the USFWS's NEPA process. In accordance with Executive Order 13175, signed by the President on November 6, 2000 and published on November 9, 2000, the USFWS establishes regular and meaningful consultation with federally recognized tribal governments in the development of federal regulatory practices that significantly or uniquely affect their communities. This consultation process is also intended to ensure compliance with the National Historic Preservation Act and the American Indian Religious Freedom Act. According to USFWS guidance (Monette et al. 2011), consultation with Native American tribal governments also occurs whenever actions taken under the authority of the Eagle Act may affect tribal lands, resources, or the ability to self-govern. USFWS invited 38 tribes to participate in government-to-government consultation regarding this action. USFWS contacted tribes that have articulated an interest in the permitting process and all tribes with lands that fall within the Rocky Mountains and Plains and Great Lakes eagle management units (EMUs; Chapter 3.2.6). The Lower Sioux Indian Community, Tribal Historic Preservation Officer provided comments, requesting careful, culturally sensitive evaluation and assessment of the "immediate need" of the Applicant's request and requesting operational measures to avoid or mitigate eagle impacts. The Southern Ute Indian Tribe requested additional information related to eagle use at the Project and known impacts to eagles related to Project operations. On September 28, 2018, the Service responded to the Southern Ute Tribe's request for additional information. No additional information requests were received from the Southern Ute Indian Tribe. As the Service complies with the NHPA on a case-by-case basis for eagle permits, the Service considers its consultation obligations fulfilled for this permit.

Because the Service's discretion is limited to issuing or not issuing an ETP for the Project (i.e., the Service does not have the authority to authorize construction or operation of a project on non-federal lands), we are limited to recommending avoidance, minimization, and/or other conservation measures associated with the permitted activity as a means to minimize impacts to eagles. As described in Attachment A, Section 3.2, pages 16-20 and Section 4.2.2, pages 23-25), the Applicant conducted eagle use and eagle nest surveys, and implemented the Service's recommended avoidance and minimization measures, which are intended to minimize impacts to eagles to the extent practicable. As described above, we invited tribes to engage in consultation and have determined that the avoidance and minimization measures implemented at the project will also minimize effects to TCPs. There are no acquisition, construction, or improvements proposed or authorized as a result of the Selected Alternative; therefore, the Selected Alternative will not impact NRHP properties.

9) The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973, or the degree to which the action may adversely affect a species proposed to be listed as endangered or threatened or proposed critical habitat.

On July 28, 2017, the Service's Migratory Bird Management Program and the North Dakota Field Office engaged in an Intra-Service Section 7 Biological Evaluation addressing six species listed as federally endangered or threatened under the ESA that may occur in Stutsman County, North Dakota: piping plover (*Charadrius melodus*), rufa red knot (*Calidris canutus rufa*), whooping crane (Grus Americana), Dakota skipper (*Hesperia dacotae*), gray wolf (*Canis lupus*), and northern long-eared bat (*Myotis septentrionalis*). It was determined that the Project will have "No Effect" on gray wolf and "No Effect" on designated critical habitat for the piping plover. It was determined that the Project "May Affect, but not Likely to Adversely Affect" the piping plover, rufa red knot, whooping crane, Dakota skipper, and northern long-eared bat. Therefore, the Service has determined that the Selected Alternative will not adversely affect species listed under the Endangered Species Act of 1973.

10) Whether the action threatens a violation of Federal, State, or local law requirements imposed for the protection of the environment.

The Selected Alternative will not violate any Federal, State, or local law.

Findings

Under the Selected Alternative, we estimate that up to five bald eagles will be killed over a 5-year period. The Selected Alternative requires implementation of the ECP. The ECP includes EACPs that will result in additional monitoring and operational adjustments. EACPs will be implemented based on the number of fatalities documented at the Project. Increased mortality monitoring associated with this alternative (i.e., evaluating all turbines during a monitoring year), will help to ensure that fatalities are detected and will support validation of the take estimate.

Increased monitoring also has the benefit of accelerating the use of the stepwise table if a fatality is discovered, thereby helping reduce future fatalities. The issuance of an ETP to the Project would have no significant adverse effects on environmental resources or values. Based on the intensity and context of these effects and consideration of the elements associated with the Selected Alternative, issuance of a programmatic ETP to the Project as analyzed in the attached EA is not expected to result in significant adverse effects to the human environment.

VIII. Conclusions

The Service developed the EA and findings in accordance with the NEPA of 1969, as amended, and the Council on Environmental Quality's Regulations for Implementing the Procedural Provisions of NEPA (40 C.F.R. §§1500-1508). The Service concludes that, with the implementation of the avoidance, minimization, and adaptive management measures outlined in the ECP, the Selected Alternative for issuance of a programmatic ETP to the Courtenay Wind Farm will result in no significant impacts to the quality of the human environment, individually or cumulatively with other actions in the general area.

It is our determination that the Selected Alternative is not a major Federal action significantly affecting the quality of the human environment under Section 102(2)(c) of NEPA. Accordingly, an EIS is not required and our environmental review under NEPA is concluded with this finding of no significant impact (43 C.F.R. §46.325). As stated at the beginning of this document, the EA prepared in support of this finding is incorporated by reference and attached (Attachment 1). The EA also is available from the Service's Mountain-Prairie Region website at: https://www.fws.gov/mountain-prairie/wind/.

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U.S. Fish and Wildlife Service

Date

IX. Literature Cited

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Attachment 1: Environmental Assessment for the Issuance of an Eagle Take Permit for Courtenay Wind Farm, North Dakota