U.S. Fish and Wildlife Service

Issuance of an Eagle Take Permit for Pioneer Wind Park I Converse County, Wyoming

Finding of No Significant Impact

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Attachments

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 Pioneer Wind Park I, LLC (Applicant), a wholly owned subsidiary of Sustainable Power Group (sPower). The Applicant seeks a permit for non-purposeful take of eagles under the Eagle Act for the operation of Pioneer Wind Park (Project), located in Converse County, Wyoming. The Project consists of 46 General Electric 1.85 megawatt wind turbines with associated infrastructure and has been operating since October 27, 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. Part 46), 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 Pioneer Wind Park*). As required as part of the permit application, the Applicant submitted an Eagle Conservation Plan (ECP) (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). The EA (USFWS 2019) is incorporated by reference into this FONSI and provided as Attachment 1. Permit issuance will authorize bald eagle and golden eagle take that is incidental to otherwise lawful operational activities described in the EA and ECP.

The EA and ECP detail the impacts of the incidental take on bald eagles and golden eagles and how these impacts will be avoided, minimized, and mitigated. 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 eagle, defined as "consistent with the goal of stable or increasing breeding populations" (74 *Federal Register* [FR] 46836; September 11, 2009). The EA evaluated the proposed action and a no action alternative, 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 Proposed Action described in the EA.

II. Background

The EA analyzes the effects of our proposed issuance of a 5-year programmatic ETP on bald eagles, golden eagles, and the human environment and evaluates impacts over the 30-year duration of the Project. The ETP will expire after five years. The Applicant could then choose to apply for a new permit.

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 March 8, 2016, the Service received a permit application package from the Applicant for the 80-megawatt Project. The application package included an ECP. By regulation, 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, this EA evaluates 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).

On August 15, 2018, the Service's Region 6, Migratory Bird Management Office received notification from the Applicant that a dead golden eagle had been found near a wind turbine during a scheduled post-construction survey for mortalities. The golden eagle had an apparent injury to the left wing. The Applicant reported this golden eagle upon discovery and is working with the Service's Office of Law Enforcement accordingly. This fatality occurred well after the Applicant submitted their ECP and ETP application and approximately 22 months after the Project became operational. Our Collision Risk Model (CRM) predicts that there could be one golden eagle fatality per year at the Project (see EA Section 4.1.1.2); therefore, one golden eagle fatality detected in over two years of project operations and rigorous monitoring suggests that the predicted level of anticipated take was likely conservative, as our CRM is designed to be. The Applicant continues to demonstrate a good-faith effort to comply with the Eagle Act while we developed this EA and process the ETP application.

III. Alternatives Considered

Introduction

The EA considered alternatives for issuance of a permit to take bald eagles and golden 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 permit expires after five years. Afterwards, the Applicant would be required to seek another permit if the Applicant wishes to avoid the risk of prosecution for unauthorized legal take.

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 and Department of Interior 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). 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 of the EA (Attachment 1, pages 10-13).

Offsetting Compensatory Mitigation

The take limit of golden eagles in zero for all eagle management units (EMUs) (USFWS 2016a, USFWS 2016b); therefore, the Applicant is required to provide compensatory mitigation targeted to offset the predicted take of five golden eagles authorized by the 5-year permit. As explained in the EA, the Project is in the Central Flyway Eagle Management Unit (EMU). The estimated take is analyzed at the local area population (LAP) scale, corresponding to a 109-mile radius around the Project and is based on the median natal dispersal distance of golden eagles (USFWS 2016a). Therefore, to offset the authorized take of five golden eagles, the Service has determined that the Applicant is required to retrofit approximately 65 power poles as described in the EA (Chapter 2, page 10) and the ECP (Section 6). The number of retrofits was derived using our Resource Equivalency Analysis (Service 2013a), based on the estimated annual golden eagle mortalities. Briefly, and as explained more fully in the EA, retrofitting power poles (e.g., installing eagle-safe perches, installing perching deterrents, insulating electrified phases) reduces eagle mortality by preventing electrocution.

Compensatory mitigation is not required for bald eagle mortality at the Project because the estimated take is below the take limit (USFWS 2009a, USFWS 2009b, USFWS 2016a). As explained more fully below, the predicted eagle take for the Project, one bald eagle over five years, is not expected to exceed that which can be sustained at the EMU level. Furthermore, the predicted take is not expected to exceed the 5% take threshold within the 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, bald eagle populations are robust and can sustain the mortality estimated to occur at the Project.

The Applicant, in communication with the Service, is developing a compensatory mitigation plan for offsetting permitted golden eagle take. The retrofits will focus on high-risk utility poles and will not be duplicative of the implementing utility company's other obligations to retrofit power poles within its system. In addition to offsetting permitted golden eagle mortality, the retrofits will also benefit bald eagles and other raptors by protecting them from electrocution.

No Action Alternative

Under the No Action Alternative, the Service would take no further action (i.e., not issue an ETP) to Pioneer Wind Park I, LLC. 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 subject to investigation by the Service's Office of Law Enforcement and potential referral to the Department of Justice for prosecution (i.e., the Applicant would assume all legal liability associated with eagle take 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 the No Action Alternative 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 if the permit application fails 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.

Proposed Action

Under the Proposed Action, we would issue a five-year ETP allowing for the non-purposeful take of up to one bald eagle and up to five golden eagles over five years, with associated permit conditions, as allowed by 50 C.F.R. §22.26(f) under the 2009 Eagle Act regulations. We used our CRM to estimate the number of annual bald eagle and golden eagle mortalities resulting from the Project operation and maintenance [Chapter 4 of the EA (Attachment 1, pages 23-26)]. The five-year ETP would include specific permit conditions, including implementation of the BMPs, monitoring, reporting, and adaptive management, as discussed in the EA (Chapter 2, Attachment 1, pages 10-13) and in the ECP (Sections 8-10, pages 38-56).

The ETP is issued for five years. The permit would apply to the operation of all 46 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.

	Proposed Action – Issue Permit	**Alternative 1 – No Action**
Eagle Take Levels	1 bald eagle over 5 years 5 golden eagles over 5 years	1 bald eagle over 5 years 5 golden eagles over 5 years
Avoidance and Minimization	1. Site turbines to avoid eagle use and eagle nest sites. 2. Site turbines to avoid areas of concentrated prey. 3. Reduce number of turbines by 16. 4. Carcasses that may attract eagles will be removed.	None required; however avoidance and minimization measures 1-3 were voluntarily completed by the Applicant.
Compensatory Mitigation	~65 retrofits, mitigating loss of 5 golden eagles. No compensatory mitigation is required for bald eagles.	None provided
Unmitigated Eagle Take	None, golden eagle take will be fully mitigated	Yes, any golden eagle take would be unmitigated
Adaptive Management	1. If any eagle is taken, determine cause or contributing risk factors and consult with Service. 2. Two eagles taken in one year, or an average of greater than one eagle per year after the first two years, perform additional surveys to evaluate risk and inform conservation measures. Consult with Service. 3. If before or by the end of the 4th year, the Project has taken 1 bald eagle and/or 4 golden eagles, consult with Service to identify causal factors to avoid further take and implement conservation measures and experimental advanced conservation practices. These may include: a) Employing onsite biological monitor(s) during daylight hours at locations and/or times of suspected risk, to further refine the understanding of risk factors. b) Implementing a limited curtailment program specific to the area(s) and/or period(s) of highest collision risk. c) Developing and evaluating an automated detection and deterrent system for eagles approaching area(s) of risk. d) Other agreed upon measures	None
Data Collected by Service	• Annual monitoring report of fatalities; reporting of injured eagles; information on the effects of specific, applied, conservation measures	None
Company Liability for Eagle Take	• No (if in compliance with permit conditions)	Yes

Evaluation of Alternatives

The EA evaluated potential impacts that could result from the issuance of the ETP. 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 requires the consideration of context and intensity (40 C.F.R. 1508.27).

Selected Alternative

The Selected Alternative for this action is the Proposed Action (issuance of an ETP), 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 and golden 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 population level and cumulative effects. We developed conservative risk estimates for the Project and determined our cumulative effects analysis to be protective of both eagle 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 Service typically uses the upper 80th credible interval around the estimated number of annual eagle fatalities for permit decisions in an effort to avoid underestimating fatality rates at wind projects. For this Project, the Service is selecting the 99th credible interval (a more conservative estimate of eagle fatalities) because the preconstruction data that was used in the model was collected prior to the development of ECP guidance and survey methods were based on WGFD recommendations. Therefore, only a subset of the survey data was useful for the model. 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 one bald eagle and up to five golden eagles will be taken over the duration of the 5-year permit. We have purposefully used a more conservative set of estimates to be protective of

eagles (i.e., such that actual take does not exceed authorized 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 both during the permit term and in the future, should the Applicant seek a new permit.

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 the LAP (an 86-mile radius around the Project for bald eagles and a 109-mile radius for golden eagles). This analysis included available data from the Eagle Management Unit (EMU) in which the Project occurs (Central Flyway EMU). We developed this conservative estimate of population-level effects to be protective of the species.

Bald Eagles

The predicted take of bald eagles at the Project is 0.163 per year (for a total of one bald eagle over the five-year permit term). The estimated median population size of bald eagles in the Central Flyway EMU is 3,209 (Service 2016b). Based on the Service's process to calculate the LAP, the population size in the LAP is estimated to be 54 bald eagles. The 1% and 5% benchmarks for this LAP are about one and three bald eagles per year, respectively (Chapter 4 of the EA, Attachment 1, page 27). 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). As discussed in the EA (Attachment 1, Chapter 4, page 25), the Service's objective is to manage bald eagles by authorizing take at a level that is less than 5% of the LAP. In the LAP, no permits for bald eagle take have been issued. The current permitted take of bald eagles existing within this LAP combined with the estimated take for the Project is 0.163 bald eagles per year or about 0.30% of the LAP, which is well below the 1% and 5% LAP benchmarks. Hence, this level of take would not exceed the 1% or 5% benchmarks.

In addition to establishing take limits at the LAP scale, the Service has established take limits for bald eagle populations by EMU as discussed in the Final Environmental Assessment (FEA) for the 2009 Eagle Act take regulations, and revised in the PEIS. For the Central Flyway EMU, the annual take limit is set at 70 bald eagles per year (USFWS 2016b). Therefore, the annual population effects in the Central Flyway EMU would be well below the corresponding take threshold.

Our LAP analysis also included an assessment of unpermitted bald eagle take (unauthorized bald eagle mortality) that we are aware of within the LAP for the years 2009 to 2018 (the time interval selected for the LAP analysis). In making eagle permitting decisions, the Service is required to assess whether or not annual unauthorized eagle mortality would exceed 10% of the LAP associated with the Project or action. Our analysis documents that there were 29 total unpermitted bald eagle mortalities during this time period, for an average of 2.9 per year. On an annual basis, 2.9 unpermitted bald eagle takes equals about 5.42% of the total bald eagle

population in the LAP associated with the Project. This amount of unpermitted take is well below the 10% threshold level for unpermitted take within the LAP.

Golden Eagles

The predicted take of golden eagles at the Project is 0.851 per year (for a total of five golden eagles over the five-year permit term). The estimated median population size of golden eagles in the Central Flyway EMU is 15,327 (Service 2016b). Based on the Service's process to calculate the LAP, the population size in the LAP is estimated to be 1,411 golden eagles. The 1% and 5% benchmarks for this LAP are about 15 and 71 golden eagles per year, respectively (Chapter 4 of the EA, Attachment 1, page 26). As discussed in the EA (Attachment 1, Chapter 4, page 27), the Service's objective is to manage eagles by authorizing take at a level that is less than 5% of the LAP. In the LAP, no permits for golden eagle take have been issued. The current permitted take of golden eagles existing within this LAP combined with the estimated take for the Project is fewer than one golden eagle per year or about 0.06% of the LAP, which is well below the 1% and 5% LAP benchmarks. Hence, this level of cumulative take would not exceed the 1% or 5% benchmarks for the LAP.

The Service has established take limits for golden eagle populations by EMU as described in the FEA for the 2009 Eagle Act take regulations and revised in the PEIS. For the Central Flyway EMU, the annual take limit is set at zero for golden eagles (USFWS 2016b), therefore any permitted take must be offset by compensatory mitigation. The predicted take of golden eagles at the Project is 0.852 per year (for a total of five over the five-year permit term). Therefore, as described in the "Offsetting Compensatory Mitigation" section above, the Service has determined that the Applicant is required to retrofit approximately 65 power poles.

Our LAP analysis also included an assessment of unpermitted golden eagle take (unauthorized golden eagle mortality) that we are aware of within the LAP for the years 2009 to 2018 (the time interval selected for the LAP analysis). In making eagle permitting decisions, the Service is required to assess whether or not annual unauthorized eagle mortality would exceed 10% of the LAP associated with the Project or action. Our analysis documents that there were 157 total unpermitted golden eagle mortalities during this time period, for an average of 15.7 per year. On an annual basis, 15.7 unpermitted golden eagle takes equals about 1.15% of the total golden eagle population in the LAP associated with the Project. This amount of unpermitted take is well below the 10% threshold level for unpermitted take within the LAP.

The Service will continue to encourage measures to reduce mortality from the sources identified in the EA and PEIS, including those identified for the Project. The adaptive management strategy outlined in the EA and the Applicant's ECP are intended to minimize ongoing take at the facility.

Conclusion

The incremental effect of the operational Project on bald eagles and golden eagles is small. The predicted take of bald eagles at the Project is well below the maximum allowable cumulative take for the EMU. The predicted take of golden eagles at the Project exceeds the EMU take limit, however, the Applicant is required to retrofit approximately 65 power poles, which is intended to offset the Project's permitted golden eagle take. We have determined there would be no significant adverse cumulative effects to bald eagle or golden eagle populations by issuing an ETP to the Applicant.

Native American Cultural Values

NEPA requires an analysis of project impacts to cultural resources. The PEIS identified tribal coordination as an important issue for subsequent analysis, given the cultural importance of eagles to the tribes. In accordance with Executive Order 13175, Consultation and Coordination with Tribal Governments (65 FR 67249, Nov. 9, 2000), the NHPA Section 106 (36 C.F.R. Part 800) and the Service's Native American Policy, we consult with Native American tribal governments whenever we take action under the authority of the Eagle Act that may affect tribal lands, resources, or the ability to self-govern. The purpose of Executive Order 13175 is to establish regular and meaningful consultation and collaboration with tribal officials in the development of federal policies that have tribal implications. It also specifies that it is the responsibility of agencies to strengthen the United States government-to-government relationships with Native American tribes, and to reduce the imposition of unfunded mandates upon Native American tribes. Our tribal consultations serve to notify the Tribes of the requested issuance of an ETP. Consultation provides tribes with the opportunity to express tribal views on the unique, traditional religious and cultural relationship of eagles to Native American communities.

The Service currently manages both species at the EMU level, which is defined, with some modifications, by the four administrative flyways. This Project occurs in the Central Flyway. At the time the application was received, the Service managed golden eagle populations at the Bird Conservation Region (BCR) level for golden eagles, and multi-state level for bald eagles. We contacted seventy-four (74) sovereign nations through formal letters to offer the opportunity for formal consultation concerning this potential federal action. Sovereign nations located in the Northern Rockies, Southern Rockies/Colorado Plateau, Badlands and Prairies, and Shortgrass Prairie BCRs received these letters. The first letter informed them of the anticipated receipt of the ETP application and preparation of this EA, the second letter announced the public availability of the EA and the 30-day public comment period, and the third letter will announce the final EA and FONSI. To date, three tribes have responded, each requesting additional information and the Service responded accordingly. On April 16, 2015 the Service consulted with the Santa Clara Pueblo about the Project. Discussion with the tribe included an overview of eagle take permitting rules, the project overview, eagle surveys, eagle fatality monitoring, conservation measures, mitigation and adaptive management. On November 15, 2018, the Service responded to a letter received from the Southern Ute Tribe, which was requesting more information about impacts from wind farms to eagles. The Service has not received additional

correspondence from the Southern Ute Tribe. The Northern Cheyenne Tribe responded during the public comment period, requesting more information about migratory eagles. On December 10, 2018 the Service responded to this request via a telephone conversation with Jason Whiteman, of the Northern Cheyenne Tribe. Consultation with tribal governments is an ongoing process. If the Applicant chooses to apply for a new permit when this ETP expires, tribes will again be notified and offered the opportunity for consultation.

To address the effects of eagle take on cultural practices, the Service assessed whether the Proposed Action or No Action Alternative would impact the religious and cultural significance of eagles to Native American communities. Cumulative effects of the Proposed Action for the non-purposeful take of bald and golden eagles will not result in regional population declines as the take of bald and golden eagles at the Project is expected to be below the sustainable take threshold for the EMU. In addition, the Service will review take thresholds in the EMUs on a regular basis relative to bald and golden eagle population and demographic parameters, and will modify or adjust the permitting regulations accordingly. If there is evidence that demand for permitted eagle take will exceed take thresholds for the EMUs, the regional structured-allocation process will ensure that authorized take necessary to meet the religious use for traditional ceremonies of a Native American Tribe will not be precluded due to other take being authorized for another purpose (USFWS 2009a). The ETP 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. As described in Section 1.6.1 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 Traditional Cultural Properties.

V. Public Comment

The Service published the draft EA on the Service's Mountain-Prairie Region's website (https://www.fws.gov/mountain-prairie/wind/) on September 28, 2018, opening a 30-day comment period, which ended on October 29, 2018. Nine sets of comments were received and were composed of general statements of support or opposition to the Project, comments concerning information that was already included in the document, and requests for clarification. After evaluating public comments, minor clarifying language was incorporated into the EA, specifically related to post-construction monitoring, the adaptive management process, and the LAP and cumulative effects analysis process. The Service updated the LAP analysis and associated cumulative effects analysis to accurately reflect any eagle permits that have been issued between the draft EA and this final EA. After public comments were evaluated and the LAP and cumulative effects were updated, it has been determined that there is no new significant information and the Service has prepared this FONSI in accordance with NEPA regulations (40 C.F.R § 1508.13).

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 eagles by authorizing take at a level that is less than five percent of the LAP. The existing permitted take of bald eagles within the Project's LAP, combined with the estimated take for the Project (0.163 bald eagles per year) equals 0.30% of the LAP. This level of permitted take in the LAP is well below the 1% and 5% benchmarks, and therefore is compatible with the preservation of bald eagles. The existing permitted take of golden eagles within the Project's LAP, combined with estimated take for the Project (0.851 golden eagles per year) equals 0.06% of the LAP, which is well below the 1% and 5% benchmarks. 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; however compensatory mitigation in the form of retrofitting approximately 65 high-risk power poles is required to offset permitted golden eagle mortality at the Project. These retrofits are expected to also be beneficial to bald eagles. The direct and indirect effects of take, together with cumulative effects of permitted take, are compatible with the preservation of bald eagles and golden 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 Project is therefore a legitimate interest in a particular locality. The Applicant is seeking an ETP to comply with the Eagle Act as they anticipate some unintentional take of bald eagles and golden eagles will occur from 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 Project currently collects and delivers renewable energy. The Service has determined that unintentional take of bald eagles and golden 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 to address potential long-term effects (see ECP, Section 8.0). 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 layout was revised to avoid and minimize impacts to eagles as identified in the ECP (see Section 6.0) and in the EA (Chapters 1 and 4). 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 ACPs.

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 and golden 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 (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.

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, 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 and golden eagle take thresholds are based on regional populations (USFWS 2009a, 2009b, 2016a, 2016b). 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 and golden 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 and golden 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 and golden 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 and/or if eagles are incidentally taken by the Project, they will be sent to our Repository and distributed to tribes for religious 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 adaptive management, which includes mortality monitoring that will benefit the Service's understanding of mortality of bald eagles and golden 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 conservation 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 non-purposeful take of eagles at 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 eagles and effects of 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." While some public comments point to disagreements between the Service and project opponents about technical subjects , e.g. flight path conversions, they do not constitute substantial disputes as to the environmental consequences of the Project. This Project is likely to take eagles, and there is no dispute about that consequence. Further, the fact that one eagle has been taken in over two years of wind farm operations suggests that the predicted level of anticipated take was likely conservative. The Service has determined that the Selected Alternative will not have effects on the quality of the human environment that are 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 and the Service's CRM to estimate eagle take were 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 has been conducted for two years at 100 percent of the turbines. 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 permit term 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.

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. We also discussed reasonably foreseeable future (EA, Section 4.2.4).

Bald Eagles

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, pages 23-26). The annual fatality estimate is 0.163 bald eagles per year at the 80th upper credible interval. As discussed in the LAP, EMU, and cumulative effects analysis contained with the EA (see Attachment 1, Chapter 4, pages 25-26), the Service's objective is to manage both 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, no permits have been issued for bald eagle take. The estimated take for the Project is 0.163 bald eagles per year or about 0.30% of the LAP; this is well below 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 PEIS. This Project is within the Central Flyway EMU, which has an annual take threshold of 70 bald eagles per year (USFWS 2016b). The predicted take of bald eagles at the Project is less than one bald eagle per year. Therefore, the annual population effects in the Central Flyway EMU would be well below the corresponding take threshold. Therefore, there are no

significant adverse cumulative effects contributed by the Project under the Selected Alternative.

Golden Eagles

The Service used the golden 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 golden eagle fatalities that could occur at the Project associated with the wind turbines (see Attachment 1, Chapter 4, pages 23-26). The annual fatality estimate is 0.851 golden eagles per year at the 80th upper credible interval. As discussed in the LAP, EMU, and cumulative effects analysis contained with the EA (see Attachment 1, Chapter 4, pages 25-26), the Service's objective is to manage both 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, no permits have been issued for golden eagle take. The estimated take for the Project is 0.851 golden eagles per year or about 0.06% of the LAP; this is well below the 5% benchmark. The Service has established take limits for golden eagle populations by EMU in the Final Environmental Assessment (FEA) for the 2009 Eagle Act take regulations and these were revised in the PEIS. This Project is within the Central Flyway EMU, which has an annual take threshold of zero golden eagles per year (USFWS 2016b). The predicted take of golden eagles at the Project is less than one golden eagle per year, however this exceeds the EMU take limit. Therefore, the Applicant is required to offset this take through compensatory mitigation (estimated 65 power pole retrofits) and as a result, there will be 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.) is legislation intended to preserve historical and archaeological sites in the U.S. 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.

Our authority is limited to potentially authorizing take of eagles by the Project. Apart from eagles, impacts to historical resources associated with construction of the Project are outside the scope of our review. However, the Applicant did conduct Class III Cultural Resource Inventories (Attachment 1, Chapter 3, pages 21-22) and no project construction occurred within 100 feet of the sites recommended for avoidance.

Additionally, during the planning process, we advised the applicant on avoidance and minimization measures to reduce impacts to eagles. The Project design was revised to reduce the risk of eagle electrocutions or collisions with Project facilities, which included siting turbines at least 1.9 miles from known bald and golden eagle nests in the Project Area, relocating the generation-tie line to an area of minimal suitable habitat for eagles and removing nine turbine locations due to potential eagle risk. Overall, the Project was reduced from 62 WTGs with a nameplate capacity of approximately 99 MW to 46 WTGs with a nameplate capacity of 80 MW (see Attachment 1, Chapter 1, page 8).

We contacted seventy-four (74) sovereign nations through formal letters to offer the opportunity for formal consultation concerning this potential federal action. Sovereign nations located in the Northern Rockies, Southern Rockies/Colorado Plateau, Badlands and Prairies, and Shortgrass Prairie BCRs received these letters. The first letter informed them of the anticipated receipt of the ETP application and preparation of this EA, the second letter announced the public availability of the EA and the 30-day public comment period, and the third letter will announce the final EA and FONSI. To date, three tribes have responded, each requesting additional information and the Service responded accordingly. On April 16, 2015 the Service consulted with the Santa Clara Pueblo about the Project. Discussion with the tribe included an overview of eagle take permitting rules, the project overview, eagle surveys, eagle fatality monitoring, conservation measures, mitigation and adaptive management. On November 15, 2018, the Service responded to a letter received from the Southern Ute Tribe, which was requesting more information about impacts from wind farms to eagles. The Service has not received additional correspondence from the Southern Ute Tribe. The Northern Cheyenne Tribe responded during the public comment period, requesting more information about migratory eagles. On December 10, 2018 the Service responded to this request via a telephone conversation with Jason Whiteman, of the Northern Cheyenne Tribe. Consultation with tribal governments is an ongoing process. If the Applicant chooses to apply for a new permit when the ETP expires, tribes will again be notified and offered the opportunity for consultation. t The Service considers its consultation obligations fulfilled for the issuance of this 5-year permit.

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 September 16, 2014 the Service initiated an intra-service Section 7 consultation for the issuance of an ETP for the Project (Appendix B). A Biological Assessment (BA) addressing seven federally listed species and two species that, at the time, were candidates for listing in Converse County, Wyoming. It was determined that the Project "may affect, but is not likely to jeopardize" two candidate species: the Sprague's pipit (*Anthus spragueii*) and the greater sage-grouse (*Centrocercus urophasianus*). Currently, these two species are no longer candidates for federal listing; as such they are not subject to further evaluation in this EA. It was also determined that the Project will have "no effect" on seven federally listed species: Preble's meadow jumping mouse (*Zapus hudsonius preblei*), interior least tern (*Sternula antillarum*), pallid sturgeon (*Scarphirychus albus*), piping plover (*Charadrius melodus*), whooping crane (*Grus Americana*) and designated critical habitat for the species, western fringed orchid (*Platanthera praeclara*), and the Ute ladies'-tresses (*Sprianthes diluvialis*). The Service's Wyoming Field Office reviewed the BA in accordance with section 7(a)(2) of the ESA of 1973, as amended, 16 U.S.C. 1531 *et seq*. and a letter of concurrence was transmitted to the Regional Migratory Birds Office on October 1, 2014. Our decision regarding an ETP will not alter the physical footprint of the Project and therefore will not alter its impacts to federally threatened and endangered species; therefore no further evaluation of impacts to species listed under the ESA is warranted for the Service's decision of whether or not to issue an ETP.

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.

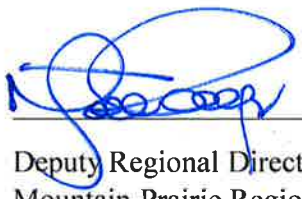
Findings

Under the Selected Alternative, we estimate that up to one bald eagle and up to five golden eagles will be taken by the Project 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 Applicant 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 Applicant as analyzed in the attached EA is not expected to result in significant adverse effects to the human environment.

VII. 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, mitigation, and adaptive management measures outlined in the ECP, the Selected Alternative for issuance of a programmatic ETP to Pioneer Wind Park I, LLC 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) hereto. The EA also is available from the Service's Mountain-Prairie Region website at: https://www.fws.gov/mountain-prairie/wind/.



5.17.19

Deputy Regional Director
Mountain-Prairie Region
U.S. Fish and Wildlife Service

Date

VIII. Literature Cited

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Attachment 1: Environmental Assessment for the Issuance of an Eagle Take Permit for Pioneer Wind Park, Wyoming