

United States Department of the Interior



U.S. Fish and Wildlife Service, Pacific Region Migratory Birds and Habitat Program 911 NE 11th Avenue Portland, Oregon 97232

FINDING OF NO SIGNIFICANT IMPACT

Decision to Amend an Eagle Take Permit to Puget Sound Energy for the Wild Horse Wind Project
U.S. Fish and Wildlife Service
Portland, OR
August 2022

Pursuant to the National Environmental Policy Act (NEPA) (42 U.S.C 4321 et seq.), the United States Fish and Wildlife Service (hereafter, Service) prepared an Environmental Assessment (EA) in October 2019, tiered to the Service's Programmatic Environmental Impact Statement for the Eagle Rule Revision (PEIS) issued in December 2016. This EA addressed the effects of the proposed incidental take of eagles submitted in a permit application (pursuant to 50 CFR 22.80) from Puget Sound Energy (PSE), for the incidental take of golden eagles (*Aquila chrysaetos*) and bald eagles (*Haliaeetus leucocephalus*) at the Wild Horse Wind Facility (Wild Horse or Project) in eastern Kittitas County, Washington. The Service published a Finding of No Significant Impact (FONSI) in October 2019, and issued a five-year eagle incidental take permit to PSE with an effective date of 11 November 2019, and an administrative amendment on 23 December 2019. On 30 September, 2021 PSE submitted an amendment request to extend their permit term to 15 years. The Service's decision whether to issue an amended permit to PSE is a federal action subject to NEPA as well as the Bald and Golden Eagle Protection Act (16 United States Code [U.S.C.] §§ 668-668d)(Eagle Act) and its implementing regulations (50 CFR 22.80), and our general permit requirements (50 CFR Part 13).

Because the proposed action evaluated in our October 2019 EA has changed, we reviewed whether the new proposed 15-year permit would require supplementation of the EA. The October 2019 EA considered three alternatives:

Alternative 1, deny the permit (the No Action Alternative);

Alternative 2, issue a 5-year eagle take permit to the applicant based on their permit application and negotiated conditions (our Preferred Alternative); and

Alternative 3, issue a 30-year eagle take permit with additional mitigation requirements.

Other alternatives were considered but rejected as not meeting our purpose and need as described in section 3.3.4 of the EA. The amendment application requested a 15-year permit term, which is most similar to Alternative 3. We, hereafter, refer to the applicant's request for a 15-year permit as the Proposed 15-Year Alternative.

BACKGROUND

Wild Horse Wind Project applied for a 5-year Eagle Permit in 2015, requesting authorization of non-purposeful or "incidental" take of bald and golden eagles under the Eagle Act for operational activities associated with the Project. The original Wild Horse Wind Project was developed and constructed by Zilkha Renewable Energy (Zilkha) and then purchased by PSE. Construction of the original project,

consisting of 127 turbines (Table 1, below), began mid-October 2005 and was completed in December 2006 when it became operational. PSE assumed management when the facility commenced commercial operations in 2006. In early 2009, Washington's Energy Facility Site Evaluation Council amended the Site Certification Agreement (SCA) authorizing PSE to expand Wild Horse by an additional 22 turbines. PSE began construction in May of 2009 and the expansion began operation on November 9, 2009. This Project is described in greater detail in the Eagle Conservation Plan (Appendix A) of the EA. At the time of issuance of the original 5-year permit, the Service predicted that the project would take 1.72 golden eagles and 0.53 bald eagles annually which, after multiplying by five and rounding up, equals a fatality prediction of 9 golden eagles and 3 bald eagles over the course of the five-year permit. Of those, 0.25 golden eagles per year, or 2 golden eagles over five years, required compensatory mitigation. Since permit issuance, remains of 3 golden eagles and 1 bald eagle have been found during incidental and formal fatality monitoring activities.

Predicted take resulting from the amendment proposal can be predicted by multiplying the Service's annual fatality prediction by 15, instead of five (as was done in Alternative 2), and rounding up to the nearest whole number. The result is a fatality prediction of 26 golden eagles and 8 bald eagles over 15 years. PSE's request for an amendment to extend their permit term to 15 years was not explicitly evaluated in the EA, thus, exact conditions of the permit were not analyzed. However, the conditions and the effects of those conditions under the Proposed 15-Year Alternative fall between the effects analyzed under Alternative 2 and Alternative 3. The new conditions of a permit under the Proposed 15-Year Alternative are outlined below, along with how they are different from Alternatives 2 and 3.

DESCRIPTION OF PERMIT CONDITIONS ASSOCIATED WITH THE PROPOSED 15-YEAR ALTERNATIVE

Compensatory Mitigation Measures

PSE will be required to provide compensatory mitigation to offset predicted take of golden eagles at a ratio of 1.2:1, identical to the ratio required under Alternative 2. This offset will be achieved by retrofitting high-risk electrical distribution poles. The number of poles that would be retrofitted or rebuilt is derived using our Resource Equivalency Analysis (REA), which is based on the predicted number of annual eagle fatalities at the 22 turbines installed after September 11, 2009 (Appendix C in the EA) and literature-accepted values for how many eagles are killed at high-risk power poles. When running the REA, we assumed that a power pole retrofit is effective at preventing eagle deaths for 30 years. PSE has already provided compensatory mitigation to offset authorized golden eagle take for the 5 years under their existing permit; the required retrofits were completed in year 1 of the current permit. Since the Service would not alter take authorization rates as a part of the Proposed 15-Year Alternative, there would be no additional requirement for compensatory mitigation until completion of the first Permit Review (to be scheduled in 2024). At that time, the Service will identify the updated compensatory mitigation requirement for years 5 through 10, concurrent with the updating of the Project's fatality prediction.

At each scheduled 5-year check-in for the duration of the permit (there will be one in 2024 and another in 2029 under the Proposed 15-Year Alternative), eagle fatalities will be estimated and mitigation requirements for subsequent 5-year periods will be adjusted to account for updated fatality predictions and any excess mitigation already provided. PSE's compensatory mitigation commitment under the Proposed 15-Year Alternative is summarized in Table 1.

Table 1. Compensatory mitigation requirements under the Proposed 15-Year Alternative.

	Bald Eagle	Golden Eagle
Predicted Take for 15-year Permit Term (Annual)	8 (0.53 per year)	26 (1.72 per year)
Take required to be offset during a 15-yr Permit Term ¹ (Annual rate)	0	4 (0.25 per year)

¹Compensatory Mitigation is only required for Golden Eagle take estimated at the 22 turbines resulting from the 2009 expansion at Wild Horse.

Fatality Monitoring

Under the Proposed 15-Year Alternative, post-construction fatality monitoring will be conducted by a qualified, independent third party, approved by the Service for at least one year within each 5-year period of the permit term. Monitors must report directly to the Service and provide a copy of the report and materials to the permittee.

Under the Proposed 15-Year Alternative, PSE would be required to conduct an operational fatality monitoring program that includes eagle remains searches, searcher efficiency trials and carcass persistence trials. For every 5-year review period, all Searcher efficiency trials, all carcass persistence trials, and at least one year of eagle remains searches must be conducted and summarized by a qualified independent third-party, as described and analyzed under Alternative 3.

Eagle remains searches would be conducted as described and analyzed under Alternative 3, with a method that achieves, as determined by the Migratory Bird Permit Office, a 5-year average site-wide probability of detection of 0.35. If an average site-wide probability of detection of 35% is not achieved over a 5-year period or site-wide probability of detection is less than 8% in any year of the permit term, adaptive management measures are triggered.

Searcher efficiency trials would be conducted as described and analyzed under Alternative 3, for one year per method per 5-year period, stratified by each of the four seasons in each year. These trials would be conducted for every unique carcass search method used, even if no formal monitoring is performed. This includes opportunistic finds during normal Project operations and maintenance. Searcher efficiency trials would use 20 surrogate carcasses per season placed at randomly selected turbines and at random locations within each search plot.

Carcass persistence trials would also be conducted as described and analyzed under Alternative 3, at minimum, over the course of one year during every 5-year period, stratified by each of four seasons. We would require that PSE use 10 surrogate carcasses per season placed at randomly selected turbines and at random locations within the project footprint or similar nearby habitat. Raptor carcasses would be used as surrogates when possible. Trials would be required to last a minimum of 90 days per season when raptor carcasses are used.

Adaptive Management

PSE would be required to implement an adaptive management plan similar to that described and analyzed in Alternative 3 of the EA. The triggers would be modified from Table 6 of the EA to adjust for a 15-year permit term. This plan, coupled with post-construction fatality monitoring, will help ensure that authorized take is not exceeded during the 15-year permit term. If observed take at the project reaches

predetermined levels that would cause the Service to be concerned, an additional conservation measure will be implemented at the project with the goal of reducing take rates.

5-Year Permit Reviews

PSE would be required to participate in permit reviews every 5 years during the permit term, as described and analyzed under Alternative 3. PSE would be required to compile and submit all Project-specific data at least 90 days prior to each 5-Year Permit Review to inform a review of the permit and its conditions. The Service would require that the first Permit Review occur no longer than 5 years from the date the initial authorization was approved, which is November 5, 2019. Thus, the first Permit Review would be scheduled in the year 2024. The second and final Permit Review would be scheduled in the year 2029.

Reporting

Take Reports

PSE would report all eagle fatalities to our Central Washington Field Office, and to the Migratory Bird Permit Office via email, within 48 hours of discovery, whether observed during post-construction fatality monitoring or incidentally by Project personnel. Reports of eagle fatalities would be documented using a standardized form and include the date of discovery, the species and estimated age of the eagle, the location, the suspected cause and date/time of death or injury, and any other pertinent details (e.g., turbine location, wind conditions, etc.).

Annual Reports

PSE would submit written reports each year during the 15-year permit term, similar to Alternatives 2 and 3. Reports will be submitted to us by January 31 of each year. A summary of some of the key components of each annual report is provided below.

- Observed incidents of eagle take and how each was discovered.
- Disposition of eagle remains (alive/dead), location, species, sex, age, and dates of each observed fatality.
- Maps or graphical representations illustrating the geographic distribution and location of all observed fatalities (relative to turbine locations).

Table 2. Differences between the existing action alternatives in the EA, and amendment proposal, which falls between Alternative 2 and 3 in terms of requirements.

	Alternative 2	Proposed 15-Year	Alternative 3
		Alternative	
Predicted Take ¹	9 golden eagles and 3	26 golden eagles and 8	52 golden eagles and
	bald eagles	bald eagles	16 bald eagles
Eagles Required to be	2 golden eagles	4 golden eagles	8 golden eagles
Offset with Mitigation			
Fatality Monitoring	3 years quarterly operational monitoring of all turbines. Not required beyond permit term.	Achieve an average probability of detection (g-value) site wide over every 5-year term of \geq 0.35. Required until calendar year 2034.	Same as Amendment Proposal, except required until calendar year 2049.
Adaptive	Triggers based on	Triggers based on the	Triggers based on the
Management	concerning rates of	same concerning rates	same concerning rates
	take, geared towards a	of take, geared towards	of take, geared towards
	5-year permit term	a 15-year permit term	a 30-year permit term

5-Year Reviews	None required	Required in calendar years 2024 and 2029	Required in calendar years 2024, 2029, 2034, 2039, and 2044
Reporting	Report eagles remains as discovered; report fatality monitoring results and data from searches and bias trials annually	Same as Alternative 2, except annual reporting would continue until calendar year 2034	Same as Alternative 2, except annual reporting would continue until calendar year 2049

¹ Annual Predicted Take is the same across all Alternatives and the Amendment Proposal (1.72 golden eagles per year, and 0.53 bald eagles per year).

EFFECTS AND FINDINGS

The three alternatives considered in the EA provide a reasonable range to assess differing potential environmental effects associated with issuance of an Eagle Permit, and the Proposed 15-Year Alternative is similar to both Alternatives 2 and 3. As a result, we conclude that no supplementation of the EA is required, as the Proposed 15-Year Alternative falls within the range of effects addressed in the EA. Alternative 1 does not achieve a net conservation benefit to eagles whereas the other alternatives do. Alternatives 2, 3 and the Proposed 15-Year Alternative have similar but slightly differing requirements (see Table 2). Alternatives 2, 3 and the Proposed 15-Year Alternative all require fatality monitoring, adaptive management, and compensatory mitigation that meet our population management objective. The Proposed 15-Year Alternative is our Preferred Alternative because it describes the issuance of a 15-year permit, which is the term applied for by PSE. Alternative 3 would provide for additional mitigation that might compensate for take at the facility beyond what is required under current authorities. As such, a 30year permit may provide the greatest potential value, certainty, and adaptive capacity of the three alternatives; however, the applicant has requested a 15-year permit at this time. We have determined that it would be more beneficial to eagles to permit the Project for fifteen years, rather than have the applicant not agree to the terms of a 30-year permit. Similarly, we have determined that it would be more beneficial to eagles to permit the Project for fifteen years, rather than retaining the current 5-year permit term.

Rigorous analyses of eagle population data and models allowed the Service to determine allowable take thresholds for both species (PEIS), under which authorized take will be consistent with the Service's eagle preservation standard. We re-performed comparisons of predicted take rates at the Project with these take thresholds and have determined that implementing the Proposed 15-Year Alternative will not exceed annual Eagle Management Unit (EMU) take limits for either species, after consideration of compensatory mitigation for golden eagles. Additionally, the Proposed 15-Year Alternative will not result in direct, indirect, or cumulative permitted take that exceeds the 1- and 5- percent thresholds of the Local Area Population (LAP, described in the EA and PEIS) for golden eagles. Total permitted take within the Project LAP is 4.84%. Unpermitted anthropogenic take within the Project LAP is 0.73%. A re-analysis of unpermitted take in the Project LAP did not produce evidence to suggest that unauthorized take is presently exceeding 10 percent of the LAP for golden eagles. For bald eagles, the Proposed 15-Year Alternative will not result in direct or cumulative permitted take that exceeds the 5-percent thresholds of the LAP. Total permitted take within the Project LAP is 1.36%. Unpermitted anthropogenic take within the Project LAP is 4.37%. A re-analysis of unpermitted take in the Project LAP did not produce evidence to suggest that unauthorized take is presently exceeding 10 percent of the LAP for bald eagles. Authorizing take at this facility for a 15-year permit term is, therefore, compatible with the preservation of bald eagles and golden eagles.

Direct and indirect effects to other species of birds and bats are similar under all alternatives because the project is operational now and would continue so regardless of this permit decision. However, the

intensity of mortality and injury impacts would likely be reduced under the Proposed 15-Year Alternative due to the implementation of avoidance/minimization measures, monitoring, and mitigation for eagles for a longer duration than the current permit term of 5 years. Adverse impacts to migratory birds and bats could be further reduced if conservation measures were implemented under the required adaptive management framework. Specifically, if adaptive management triggered the application of a monitoring and curtailment program for eagles, this action could also potentially reduce the potential for migratory bird and bat fatalities and injuries associated with collisions with turbine blades. Additionally, compensatory mitigation required to offset golden eagle take under the Proposed 15-Year Alternative could benefit raptors and other birds with large wingspans by reducing the risk of electrocution elsewhere. This compensatory mitigation would also provide a greater benefit to raptors and other birds with large wingspans than Alternative 2 because of the increased amount of compensatory mitigation required under the longer permit term.

The Service must also find that, upon receipt of a complete application, the criteria in 50 CFR 13.21 "Issuance of Permits" are met, and required determinations are made in 50 CFR 22.26 (prior to 2016 revision). Based on the EA and our review of the updated proposal here, the Service finds that the issuance of this permit under the Proposed 15-Year Alternative meets all of the criteria required of 50 CFR 22.26 and 50 CFR 13.21.

FINDINGS RELATED TO OTHER RESOURCES

The issuance of a 15-year eagle incidental take permit will not have significant impacts on public health or safety, natural resources and unique geographic, park, recreation or refuge lands, wilderness areas, wild or scenic rivers, national natural landmarks, sole or principal drinking water aquifers, prime farmlands, national monuments, migratory birds, and other ecologically significant or critical areas. No known historic places have been identified in the area where the activity will be taking place, nor is the offsite pole retrofits required for mitigation expected to have the potential to affect cultural resources, but the permittee will be required to prepare a cultural resources assessment of the final pole retrofits, and the Service will consult with the interested tribe and SHPO at that time as appropriate. The proposed action will not significantly impact structures or properties, and does not conflict with proposed or adopted local, regional, State, interstate, or Federal land use plans or policies, that may result in adverse environmental effects. The proposed action will not authorize the take of species listed or proposed under the Endangered Species Act. No designated Critical Habitat will be affected by the proposed action as it does not authorize a change in the habitat conditions for which such areas would be designated.

The Proposed 15-Year Alternative is unlikely to result in cumulative effects to eagles given current knowledge. If future actions arise that might result in cumulative effects, they will be considered and taken into account for future eagle take permit analyses. Precedent already exists for permits of this nature, so this action does not represent a new precedent or decision in principle. The proposed action will not have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources.

PUBLIC SCOPING AND TRIBAL CONSULTATION

Twenty-five federally recognized Indian Tribes could have special interests that may be affected in the area surrounding the Project based on their proximity. The Service notified these tribes of the amendment request to extend the permit term on April 20, 2022. We received no comments or requests for formal government-to-government consultation in response to these letters.

DETERMINATION

The Service has selected the Proposed 15-Year Alternative as described in this FONSI and will issue a 15-year Eagle Incidental Take permit (50 CFR 22.26) for the incidental take of bald eagles and golden eagles associated with the operation of the Wild Horse Wind Facility. We have found the application submitted for the permit under 50 CFR 22.26, and the conditions negotiated with the applicant, meet the issuance criteria.

We considered impacts to eagles and other resources from the Project at the eagle management unit and local area scales in the EA, incorporating the PEIS by reference. No substantive changes to these impacts are anticipated as a result of the change in the permit term The eagle take that we predict will occur at this facility is conservative, within allowable thresholds, and for golden eagles will be compensated by PSE through power pole retrofits that PSE has already implemented with Kittitas County PUD and will implement with the same or other partners in future permit terms. Additionally, under this alternative, PSE would be required to perform fatality monitoring and implement adaptive management that would reduce eagle mortalities further if take rates appear to be higher than expected, and to continue operational measures that avoid and minimize eagle mortality. Because of this, and considering the population analysis in the PEIS for both species, we conclude that any direct, indirect, and cumulative effects of the action under the Proposed 15-Year Alternative are not significant.

The Service determined that issuance of a permit under 50 CFR 22.26 for the take of 26 golden eagles and 8 bald eagles over the 15-year duration of the permit does not constitute a major Federal action significantly affecting the quality of the human environment under the meaning of section 102(2)(c) of the National Environmental Policy Act of 1969 (as amended). As such, an EIS is not required.

PUBLIC NOTICE

An electronic copy of this FONSI has been posted on the Service's website: https://www.fws.gov/media/wild-horse-wind-facility-eagle-incidental-take-permit. Notice was provided to the list of commenters for the Wild Horse Wind Project Eagle Permit Environmental Assessment.

REFERENCES

USFWS. October 2019. Finding of No Significant Impact: Decision to Issue an Eagle Take Permit to Puget Sound Energy for the Wild Horse Wind Project. U.S. Fish and Wildlife Service, Migratory Birds and Habitat Program, Portland, Oregon. Can be accessed at: https://www.fws.gov/sites/default/files/documents/FONSI%20MB54872B%202019 1030.pdf

USFWS October 2019. Wild Horse Wind Project Eagle Permit Environmental Assessment. U.S. Fish and Wildlife Service, Migratory Birds and Habitat Program, Portland, Oregon. Can be accessed at: https://www.fws.gov/sites/default/files/documents/EA%20FINAL%20MB54872B%202019 1030.pdf

USFWS. December 2016. Final Programmatic Environmental Impact Statement for the Eagle Rule Revision (PEIS). Can be accessed at: https://www.fws.gov/sites/default/files/documents/programmatic-environmental-impact-statement-permits-to-incidentally-take-eagles.pdf

Chief	Date	
Migratory Birds and Habitat Program		

Table 3. Stepwise adaptive management for eagle take at the Project under a 15-year permit.

	Standard Fatality Monitoring	5 Years of Enhanced Fatality Monitoring ¹	Conservation Measures
Trigger 1 Levels	4 GOEA remains found in first 5 years OR 6 GOEA remains found in first 10 years OR 2 BAEA remains found in first 10 years	8 GOEA remains found in first 10 years OR 3 BAEA remains found in first 10 years	 Conduct a detailed desktop analysis of existing data for patterns in fatalities (i.e., location, age, timing, etc.) to determine if high risk areas might be apparent. Submit results of this analysis and any conclusions to the Service within 90 days of meeting this trigger. Perform Enhanced Fatality Monitoring during the next 5-Year Review Period (i.e., achieve an average site-wide probability of detection of 0.5 over the subsequent 5-Year Review Period).
Trigger 2 Levels	≥ 5 GOEA remains found in first 5 years OR ≥ 7 GOEA remains found in first 10 years OR ≥ 3 BAEA remains found in first 10 years	≥ 9 GOEA remains found in first 10 years OR ≥ 4 BAEA remains found in first 10 years	At the beginning of the next 5-Year Review Period, implement both of the following: 1. The agreed upon conservation measure for this trigger is summarized in the attached letter. The effectiveness of this measure must be tested, with the study design approved by the Service. Alternatively, perform another measure not listed here if agreed upon by the USFWS. Perform Enhanced Fatality Monitoring during the next 5-Year Review Period (i.e., achieve an average site-wide probability of detection of 0.5 over the subsequent 5-Year Review Period).
Trigger 3 Levels	≥ 9 GOEA remains found at any time OR ≥ 3 BAEA remains found at any time	≥ 12 GOEA remains found at any time OR ≥ 4 BAEA remains found at any time	Immediately upon meeting this trigger, implement both of the following: 1. The agreed upon conservation measure for this trigger is summarized in the attached letter. The effectiveness of this measure must be tested, with the study design approved by the Service. Alternatively, perform another measure not listed here if agreed upon by the USFWS. This Alternative measure might be the continuation or enhancement of the measures described under Trigger 2, if it has been previously implemented and proven effective. 2. Perform Enhanced Fatality Monitoring during the next 5-year review period (i.e., achieve an average site-wide probability of detection of 0.5 over the subsequent 5-year review period). Note: if Trigger 3 is met simultaneous to meeting a previous Trigger (i.e., if Trigger 3 is met for the first time at the same time that Trigger 1 or 2 is met for the first time), the measures listed under Trigger 3 will be required, with implementation of measures under previous triggers being at the discretion of the permittee.

Trigger 4 Levels	The 5-year minimum average site-wide probability of detection of 0.35 is not achieved in any 5-year period during the permit term, as determined by the Service. OR Enhanced Fatality Monitoring, if required through adaptive management, does not achieve an average site-wide probability of detection of 0.5 during the required 5-year period, as determined by the Service. OR Any single year of post-construction monitoring results in an average site-wide probability of detection less than 0.08, as determined by the Service.	Perform Enhanced Fatality Monitoring during the next 5-year review period (i.e., achieve an average site-wide probability of detection of 0.5 over the subsequent 5-year review period).
Trigger 5 Levels	A new GOEA nest is discovered within 1 mile of any Project turbine OR A new BAEA nest is discovered within 0.5 miles of any Project turbine	 Immediately upon meeting this trigger, implement both of the following: Do not conduct activities that are not in response to a safety emergency (50 CFR 22.3) if the operations a) will occur within 1 mile of an in-use golden eagle nest during the nesting season (Jan 1 to Aug 31) and are within line-of-sight of the nest, b) will occur within 0.5 miles of an in-use golden eagle nest during the nesting season (Jan 1 to Aug 31), or c) will occur within 660 feet of an in-use bald eagle nest during the nesting season (Jan 1 to Aug 31). Monitor the nest status twice annually to determine if it is in-use and if it was successful. If in-use, monitor the eagle activity surrounding the nest once every 10 years (in a year when the nest is in-use) to determine if the territory or home-range associated with the nest is likely to overlap the Project footprint. At a minimum, this would entail conducting one point count for a half day each visit, alternating between morning and evening, and occurring every second week for the duration of the breeding season (from the date the nest is determined to be in-use until Aug 31) or as long as the nest remains in-use during that season. Nest monitoring protocols may be modified if necessary, based on nest-specific conditions in coordination with the Service. The survey would be performed at a strategically placed point to determine if and how frequently one or both adults and/or fledglings (if applicable) are entering the Project footprint and how often this may be occurring. In addition, if the nest produces nestlings, those nestlings must be banded with federal (USGS) aluminum bands if it is safe to do so. Another method(s)

could be used to satisfy this requirement but must be approved by the Service prior to implementation.
3. Report the discovery of the new nest to the Service and discuss, in consultation with the Service, the potential impacts of Project-related activities, if any, on the nesting eagles, and whether temporary or permanent nest take may be appropriate.

¹The triggers in this column would also apply if the permittee can demonstrate, and the Service can verify, that a site-wide average probability of detection of 0.5 was achieved, averaged over the previous 5 years of fatality monitoring.

²Probability of detection: "the probability of detecting evidence of an eagle collision with a Project turbine, should such an event occur or have occurred at the Project". The probability of detection (also termed the 'g-value') for a particular carcass search method can be calculated in the Evidence of Absence software (https://pubs.er.usgs.gov/publication/ds881) using site- specific data to account for Searcher Efficiency and Carcass Persistence.