

Questions and Answers

Shiloh IV Eagle Conservation Plan Draft Environmental Assessment

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What is an Eagle Nonpurposeful Take Permit?

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (Eagle Act). Companies that operate without an Eagle Permit risk federal penalties under the Eagle Act and Migratory Bird Treaty Act (MBTA), including criminal prosecution, for any unauthorized take of eagles. Therefore, the Service recommends wind energy companies obtain a nonpurposeful take permit prior to construction of their facilities if their proposed action has the potential to take eagles to be in compliance with the 2009 Eagle Rule. However, companies that operate without an Eagle Permit risk federal penalties under the Eagle Act MBTA, including criminal prosecution, for any unauthorized take of eagles.

Obtaining an eagle take permit involves significant planning and coordination between the Service and the applicant. An applicant must plan and implement scientifically supportable avoidance, mitigation and conservation measures over the life of the project. Permits may be issued only after the applicant demonstrates it is employing the best, scientifically-supportable techniques to reduce eagle disturbance and mortalities to a level where any additional take is unavoidable.

The Service evaluates the application to ensure eagle abundance and distribution are maintained at levels sufficient to ensure there are stable or increasing breeding populations. An eagle take permit does not retroactively authorize take of eagles that occurred prior to the date the permit was issued. Also, an eagle take permit does not authorize the take of other migratory birds.

The law authorizes the Service to issue permits to take bald eagles and golden eagles only where the taking is associated with, but not the purpose of, the activity and cannot practicably be avoided. Permits may be authorized for non-purposeful take, which includes disturbance or limited mortality, provided the breeding population at issue is stable or increasing. The Service cannot issue a programmatic eagle permit for golden eagles if doing so would decrease the overall number of eagles in the regional eagle population. However, the Service takes into consideration any proposed compensatory mitigation actions that offset fatalities by reducing another potential eagle fatality in the region when issuing a permit.

Eagle Act Background and Basic Facts

The Service's objective is to maintain stable or increasing breeding populations of eagles. With the removal in 2007 of the bald eagle from the list of threatened and endangered species protected under the Endangered Species Act (ESA), the Service issued new regulations to authorize the limited take of bald eagles and golden eagles under the Eagle Act, where the take to be authorized is associated with otherwise lawful activities. A final Eagle Permit Rule was published on September 11, 2009 (74 FR 46836–46879; 50 CFR 22.26 and 22.27).

The regulations allow the Service to issue “programmatic” eagle take permits, for activities that are likely to disturb, injure or kill eagles on a reoccurring basis where the exact time or location of such events cannot be predicted. The programmatic eagle take permits are the most

appropriate permits for wind energy facilities because the take is likely to be recurring over the life of the project.

Eagle Conservation Plans (ECPs) may serve as the foundation for programmatic eagle permit applications. The Service developed the Eagle Conservation Plan Guidance (ECPG) to provide recommendations to the wind industry on assessing eagle take risk from wind turbines, siting of projects, and requirements for Eagle Permit applications. The Draft Guidance was published in the Federal Register on February 18, 2011 (76 FR 9529), and a revised version was published in May 3, 2013 (FR Doc. 2013-10387).

What is the Purpose of this Draft Environmental Assessment (DEA)?

The Service has an obligation to respond to the applicant's request for a permit for programmatic take of golden eagles. The Service drafted this DEA in compliance with the National Environmental Policy Act of 1969 (42 U.S.C. 4321 *et seq.*) (NEPA), to analyze whether any "significant" impacts could result from issuing a permit under various alternatives. This DEA analyzes the effects on eagles and other aspects of the human environment from proposed alternatives associated with this permit action.

How Do Eagle Permits Protect Eagles?

A company that takes eagles under the authority of a permit must implement measures to avoid, minimize, and otherwise mitigate threats to eagles over the life of the project. To ensure permit issuance is consistent with the goal of stable or increasing eagle populations, compensatory mitigation that offsets eagle mortality may also be required for permit issuance.

Under programmatic eagle take permits, permittees are required to implement advanced conservation practices (ACPs). ACPs are "scientifically supportable measures that are approved by the Service and represent the best available techniques to reduce eagle disturbance and ongoing mortalities."

Why Don't Eagles Avoid Wind Turbines?

To a person standing on the ground, a wind turbine's blades may appear to be moving slowly. Blade tip speeds, however, range from 138–182 mph on larger turbines. The danger to eagles presented by wind turbines is compounded by other biological factors. Eagles are frequently focused on the ground searching for prey, or distracted by their need to chase other eagles or raptors out of their home territory. Additionally eagles have limited peripheral vision. This makes them susceptible to collisions with turbines.

Q&A Specific to Shiloh IV Draft Environmental Assessment (DEA)

Shiloh IV Eagle Conservation Plan Draft Environmental Assessment

Shiloh IV Wind Project, LLC, a subsidiary of EDF Renewable Energy, an EDF EN Company, is the applicant that has prepared the Eagle Conservation Plan (ECP) being analyzed. The ECP is the foundation for Shiloh IV's eagle take permit application. The project is an operational 50 turbine, 100 megawatt (MW), wind project on 3,500 acres in the Montezuma Hills Wind Resource Area, Solano County, California.

The DEA was prepared to evaluate the impacts of several alternatives associated with this permit application for compliance with our Eagle Act permitting regulations in the Code of Federal Regulations at 50 CFR 22.26, as well as impacts of implementation of the supporting ECP, which is included as an appendix to the DEA.

Shiloh IV Eagle Permit DEA Summary

In our National Environmental Policy Act (NEPA) analysis, the Service considered four alternative actions:

- Alternative 1: No action/permit denial
- Alternative 2: Issue a five-year permit based on applicant's proposed Eagle Conservation Plan
- Alternative 3: Issue a five-year permit based on applicant's Proposed Eagle Conservation Plan with additional mitigation and monitoring measures
- Alternative 4: Issue a five-year permit based on applicant's proposed Eagle Conservation Plan with seasonal restrictions

The Service evaluated four alternatives in our DEA. Alternative 3 is our Preferred Alternative, in our evaluation of the risk of the project to eagles. The Service considered the available information on the number and status of golden eagle breeding territories and occurrences near the project, the number of known and projected wind fatalities near the project, the existing land uses and land use practices, and population trends in the Bird Conservation Region (BCRs) in which golden eagles are managed. The Service evaluated the eagle use data developed by the applicant during preconstruction surveys, compared the applicant's estimated golden eagle fatality rates with our estimates as determined by application of the Service's Eagle Conservation Plan Guidance and predicted annual eagle fatalities using the Guidance's risk model. The Shiloh IV ECP contains a suite of experimental advanced conservation practices (ACPs) that will be implemented within an adaptive management framework. If the permit is issued, the ACPs and proposed compensation measures will ensure that effects on eagles are avoided, minimized and mitigated consistent with our requirements under the Eagle Act permit regulations.

Why is the Service Considering the Issuance of this Permit to Take Eagles?

The Shiloh IV project has the potential to kill some eagles during its operations and has applied for an Eagle Take Permit to be in compliance with the 2009 Eagle Rule. If a permit is issued, it

would allow Shiloh IV to operate within the law and benefits eagles by requiring Shiloh IV to put measures in place that will help minimize threats and compensate for eagles that are taken at the project, minimizing the impact of such takings on the regional eagle population. The Service would authorize take of eagles only if we determine that the take is compatible with the preservation of bald and golden eagles and meets the criteria for issuance of a programmatic permit that take will be avoided to the maximum degree achievable. Compatible with the preservation of bald or golden eagles means “consistent with the goal of stable or increasing breeding populations.”

What Happens Next?

The Service will evaluate comments received on the DEA and prepare either a Finding of No Significant Impact (FONSI) or Environmental Impact Statement (EIS). The FONSI or EIS will be noticed in the *Federal Register* no earlier than 30 days after the close of the comment period on the DEA. If the Service proceeds with a FONSI and determines that the proposed action is consistent with the eagle preservation standard, it would then issue an eagle take permit authorizing a limited take of eagles at the Shiloh IV project during a five-year period.

Why is an EA Being Prepared and Not an EIS?

The Service is still evaluating the proposed action. Therefore, at this time we believe an EA is appropriate to evaluate potential project effects.

Will the Service be Issuing More Permits on Other Wind Projects in the Future?

As wind power generation expands, the Service expects to receive more applications for Eagle Permits. Companies that are already operating, or planning to build wind generation facilities in areas where eagles live, should contact the Service to discuss how we can work with them. Service biologists will work with wind companies to develop conservation plans that will avoid and minimize take of eagles to the extent practical, provide for adequate compensatory mitigation, as appropriate and serve as the basis for an application. This may allow companies that proceed with wind development to lawfully take eagles and operate in a manner compatible with eagle preservation. The Service will respond to permit applications as they are received.

Why Are Fewer Eagles Killed in the Montezuma Hills Wind Resource Area (WRA) Compared to the Nearby Altamont Pass WRA?

Although the Montezuma Hills WRA has approximately twice as many turbines as Altamont WRA, and is only 30 miles north of Altamont, the habitat differences between the two are believed to be the primary factor. In the mostly treeless Montezuma Hills WRA, rotational crop dry land farming results in low squirrel (prey) populations. The habitat at Altamont Pass WRA is more suitable as golden eagle nesting and foraging habitat than at Montezuma Hills WRA. In the Altamont Pass WRA there are more trees for nesting and no farming and cattle grazing results in high squirrel (prey) densities.

Would a Permit Authorize Take That Has Already Occurred at the Project?

No. The Eagle Act permit regulations were developed to address take that is expected to occur in

the future. Unauthorized take that has occurred in the past would not be authorized under the permit.

How Many Eagles Would Shiloh IV be Permitted to Take if the Application is Approved?

Under the preferred alternative, the project would be authorized to take up to five eagles over the five-year period of the permit.

What are the Cumulative Effects of this Project on Eagles?

A fundamental component of the Service's decision process for programmatic eagle permits is evaluating the eagle mortality likely to occur due to the activity requested by the applicant. This eagle-mortality estimate assists the Service and applicant in developing a balanced Eagle Conservation Plan and permit application that includes sufficient avoidance and minimization measures, monitoring, adaptive management, and compensatory mitigation. The Service then uses the mortality estimate to determine if that level of disturbance and/or mortality, with the offsetting measures proposed in the ECP, is compatible with the standards in the Bald and Golden Eagle Protection Act (and the NEPA analysis of those regulations).

In this DEA, the Service considered four alternatives that provided a reasonable range of options for responding to the applications for an eagle permit, and evaluates the impacts of each alternative on the local area eagle population.

Because Shiloh IV would offset eagle mortality through compensatory mitigation, and may reduce the number of eagle deaths from what the Service predicted through the implementation of experimental advanced conservation practices (ACPs), issuing a permit to Shiloh IV would not contribute additional negative cumulative effects to eagle populations. The Service will continue to encourage measures to reduce eagle mortality from the sources we identified.

The Service used available golden eagle mortality data from four WRAs and from electric utilities within the project's local-area golden eagle population, which we define as all eagles within 140 miles of the Shiloh IV project. This distance is the average distance over which young golden eagles disperse from the nest where they are hatched to where they settle to breed.

Pursuant to the Eagle Conservation Plan Guidance, annual eagle mortality should not exceed 5% of the local-area population. The Service estimated that in this area about 12% of the local-area population is killed each year. More than 10% is due to older wind projects that were operational prior to 2009 when the new eagle permit rule was implemented. The majority of annual eagle mortality occurs at the Altamont Pass WRA. A permit, if issued, would include measures to ensure stable or increasing eagle populations are maintained. This will ensure that there are no additional cumulative effects to eagle populations caused by Shiloh IV.

What Happens if Effects are Greater Than Anticipated?

Two methods were used to estimate eagle take. The Service used the higher estimate which is more protective of eagles. However, if the effects are greater than anticipated, the applicant will need to request an amendment to their permit prior to reaching the identified take limit. This amendment may require additional conservation measures designed to further reduce impacts

and compensation for mortalities in addition to the original estimates. Such an amendment would be subject to the same permit issuance criteria under the Eagle Rule.

Permit holders are required to report regularly on avian mortality and implementation of conservation measures during the term of the permit. In addition, the Service can conduct site visits to assess whether required monitoring and reporting are being implemented appropriately.

Does the DEA Address Conservation of Other Sensitive Bird Species?

Yes. The applicant has prepared a Bird and Bat Conservation Strategy (BBCS) for the Project. The BBCS documents measures that are being implemented on site to avoid and minimize impacts to migratory birds and other sensitive species. This document is included in the Draft EA as Appendix B.

The BBCS includes information on mortality monitoring that has been ongoing within the Montezuma Hills WRA for over 10 years. Each new wind facility constructed within the Montezuma Hills WRA since 2003 has generated data regarding avian and bat presence and mortality. Many of the facilities have contributed intensive pre- and post-construction avian surveys that have documented avian and bat mortality associated with wind turbine collisions.

The Service used these data to evaluate project impacts to sensitive bird species, including Birds of Conservation Concern (BCC), and sensitive species such as red-tailed hawks and American kestrels. BCCs are nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act. A BCC designation is designed to stimulate coordinated, proactive conservation actions.

Were any concerns identified for migratory birds?

The Service did not identify any concerning impacts to the Birds of Conservation Concern (BCC) species for Shiloh IV. Red-tailed hawks and American kestrels are not on the Service's BCC list. While red-tailed hawk and American kestrel are relatively common raptors, large numbers are killed annually at wind farms. For that reason, we considered them sensitive species in the DEA.

The Service estimate that in the Montezuma Hills WRA, 204 red-tailed hawks and 365 American kestrels die each year. In the Altamont Pass WRA, annual mortality rates are a little higher. Because of the large numbers of known mortalities, we decided to evaluate population impacts to these raptors. The combined Montezuma Hills WRA and Altamont Pass WRA annual fatality rate for red-tailed hawks is 0.01%. For American kestrel, the annual fatality rate is below 0.01% of the regional population.

It must be noted that currently the Migratory Bird Treaty Act (MBTA) does not have a specific, comprehensive regulation for issuing permits authorizing take of migratory birds where take would be incidental to an otherwise lawful activity.

The applicant has included a Bird and Bat Conservation Strategy (BBCS) to address conservation of other migratory birds and sensitive species. The BBCS is included in the Draft EA as Appendix B.