



**October 29, 2021**

**Comments Regarding the Advance Notice of Proposed Rulemaking Regarding the Eagle  
Incidental Take Permitting Program**

Submitted by:

**Energy and Wildlife Action Coalition**

Filed electronically to the attention of:  
Public Comments Processing  
Attn: FWS-HQ-MB-2020-0023  
U.S. Fish and Wildlife Service  
MS: PRB/3W  
5275 Leesburg Pike  
Falls Church, VA 22041-3803

Docket No. FWS-HQ-MB-2020-0023

The Energy and Wildlife Action Coalition (“EWAC”)<sup>1</sup> submits these comments in response to the United States Fish and Wildlife Service’s (“Service”) September 14, 2021 advance notice of proposed rulemaking regarding the eagle incidental take permitting program (“ANPR”).<sup>2</sup>

EWAC appreciates the opportunity to provide the Service with its recommendations for improving the Bald and Golden Eagle Protection Act (“BGEPA”) Eagle Permit Program set forth at 50 C.F.R. § 22.26 (2016) (“Eagle Permit Program”). Like the Service, EWAC is committed to eagle conservation. However, EWAC is concerned that, as presently administered, the eagle incidental take permitting program (“Eagle Permit Program”) is not reaching its conservation potential. EWAC is also concerned that if the Eagle Permit Program is not materially improved, it will continue to provide take coverage for only a tiny fraction of human-caused eagle take, impose unjustifiably high costs on those who affirmatively seek to pursue voluntary eagle incidental take permits (“Eagle Permits”), and yield marginal conservation benefits relative to the costs imposed. And, in continuing in its current direction, the Eagle Permit Program will significantly hinder the Biden Administration’s clean energy development and grid modernization goals. EWAC urges the Service to consider the Eagle Permit Program in light of the past decade of program implementation, drawing on this experience, and seeking out means to improve upon it to protect eagles while minimizing the burden on the regulated community. EWAC has given careful thought to ways in which the Eagle Permit Program can be improved to increase participation, reduce the burden on Service resources, and promote eagle conservation.

The Eagle Permit Program arose from the delisting of the bald eagle from the list of protected species under the Endangered Species Act (“ESA”). It was not intended as an industry-specific program. As explained by career Service staff, the need for the Eagle Permit Program initially was driven by a need to develop a pathway to address safety hazards posed by eagle nests in proximity to airports. At the time the initial Eagle Permit Program was promulgated in 2009, the wind energy industry was working with the Service and other stakeholders to develop the land-based wind energy guidelines, and the electric transmission and distribution industry was focused on implementing the suggested practices developed by the Avian Power Line Interaction Committee (“APLIC”) in coordination with the Service. Despite that history the Eagle Permit Program has become disproportionately focused on the wind energy industry.

EWAC has a long history of engaging with the Service on the Eagle Permit Program. In September 2015, EWAC filed a complaint challenging the original Eagle Permit Program regulations that had been promulgated in 2009 (“2009 Eagle Rule”). The litigation was promptly stayed in anticipation of the 2016 amendments to the 2009 Eagle Rule. In December 2016, the Service issued the amendments to the 2009 Eagle Rule (“2016 Eagle Rule”). EWAC evaluated the 2016 Eagle Rule and noted many of its concerns remained in the amended regulations, but elected to continue in

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<sup>1</sup> EWAC is a national coalition formed in 2014 whose members consist of electric utilities, electric transmission providers, and renewable energy entities operating throughout the United States, and related trade associations. The fundamental goals of EWAC are to evaluate, develop, and promote sound environmental policies for federally protected wildlife and closely related natural resources while ensuring the continued generation and transmission of reliable and affordable electricity. EWAC supports public policies, based on sound science, that protect wildlife and natural resources in a reasonable, consistent, and cost-effective manner. EWAC is a majority-rules organization and therefore specific decisions made by the EWAC Policy Committee may not always reflect the positions of every member.

<sup>2</sup> 86 Fed. Reg. 51,094 (Sept. 14, 2021).

support of the stay in an effort to reach a settlement with the Service. In October 2019, EWAC and the federal defendants finalized and filed a settlement agreement. In August 2021, EWAC and the Service agreed on an amended settlement agreement that contemplated further rulemaking by the Service. Publication of this ANPR is a significant milestone, and EWAC views the forthcoming rulemaking as a valuable opportunity to improve the Eagle Permit Program for all stakeholders and to aid in achieving the Biden Administration's goals for clean energy, a major priority of this administration's efforts to battle climate change.

EWAC understands the Service considers the "Preservation Standard" to be the guiding standard for its Eagle Permit Program. EWAC does not agree with the Service's interpretation of its BGEPA authority as it pertains to the applicability of the Preservation Standard to incidental take permits ("Eagle Permits"). However, EWAC has focused its efforts on evaluating ways the Eagle Permit Program can be amended to achieve the Service's conservation goals for bald and golden eagles while providing for an efficient and functional permit program for the entire regulated community.

EWAC members support conservation and take seriously their roles as environmental stewards. According to the Service's own data, the renewable energy and electric power line sectors are not the leading causes of anthropogenic mortality of eagles.<sup>3</sup> Nonetheless, for many decades, the renewable energy and electric power line sectors have proactively developed and voluntarily implemented avian avoidance and minimization measures, funded research and population surveys, found and supported practical technological solutions to avoiding or reducing impacts to avian species, and have developed innovative and creative alternate mitigation options such as highway carcass removal, reduction of lead ammunition waste in the environment, and the creation of mitigation banks. Yet, the Service's focus on administering and enforcing BGEPA has disproportionately focused on these sectors to a degree that has had serious implications for clean energy development.

The costs of obtaining and implementing an Eagle Permit have implications well beyond the permitted projects and their operators. These costs are ultimately borne by the public through increased electricity prices caused by an increased cost of energy. The increased costs of electricity disproportionately impact low-income communities, running counter to the Biden administration's environmental justice goals. In order to avoid these impacts, the Service should be mindful about the cost implications of applying for and complying with permits issued through the Eagle Permit Program and other programs it administers.

Ultimately, EWAC's objective is to provide practical considerations that help the Service to improve upon the Eagle Permit Program in a way that allows for transparent and efficient permit processing, reduces the burden on Service resources, incentivizes potential permittees to seek Eagle Permits, and allows funding to be directed to eagle conservation benefits.

EWAC urges the Service to prioritize the promulgation of a wind energy general permit program for bald and golden eagles that allows for expedited permit processing for most wind energy

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<sup>3</sup> Programmatic Environmental Impact Statement ("PEIS") for the Eagle Rule Revision (December 2016), p. 76, available at <https://www.fws.gov/migratorybirds/pdf/management/FINAL-PEIS-Permits-to-Incidentally-Take-Eagles.pdf>.

facilities. An effective general permit program framework will greatly incentivize participation, make efficient use of limited Service resources, and provide a sustainable mechanism for eagle conservation. The American Clean Power Association (“ACP”) has worked with stakeholder groups (including members of the conservation community) in a year-long, facilitated process to develop a framework that would achieve these goals. We urge the Service to give serious consideration to this framework.

Below, EWAC also identifies areas where modifications to the 2016 Eagle Rule and its implementation would resolve some of its unintended consequences and impediments to a transparent and effective Eagle Permit Program.

## **I. Brief Responses to ANPR Questions**

The ANPR solicits responses to five questions. In this section, EWAC briefly provides answers to these questions, and then provides greater detail in the following sections. Please see Sections II through IV for more expansive answers and examples.

1. *Are there specific protocols, processes, requirements, or other aspects of the current permitting process for incidental take of eagles that hinder permit application, processing, or implementation?*
  - i. Yes, as described in greater detail in Sections II-IV, the following aspects of the Eagle Permit Program hinder permit application, processing, or implementation:
    1. Use of the collision risk model for wind energy as the sole method for setting take limits, favoring generic “priors” over site-specific data, and requiring that only Service personnel can generate model data for permitting. Section III(1).
    2. Incorporation of a local area population analysis into the definition of the Preservation Standard. Section III(2).
    3. Inclusion of the third-party monitoring requirement. Section III(3).
    4. Use of Evidence of Absence (“EoA”) for assessing compliance with permit requirements at wind energy facilities. Section III(4).
    5. The manner in which the five-year review process is being implemented. (Section III(6)).
    6. Absence of acceptable alternatives to reframing or retrofitting power poles for compensatory mitigation. Section III(9).
    7. Development of guidance by regional offices that is applied as requirements and that creates a patchwork of regulatory burdens that have not been published for notice and comment. Section IV.
2. *What additional guidance, protocols, analyses, tools, or other efficiencies could the Service develop that would reduce the time and/or cost associated with applying for, implementing, and conducting monitoring associated with long-term permits for incidental take of eagles under existing regulations? What are the estimated costs of the suggested additional efficiencies, and how do those costs compare to industry’s current practices?*

- i. While analysis of pooled monitoring results to assess population level impacts may be appropriate, pooled monitoring is not appropriate for use as a permit compliance tool in most circumstances. Section III(5).
  - ii. Guidance implemented as a requirement, either through its express language or in practice, and issued without soliciting and considering stakeholder input, has been invalidated by the courts under the Administrative Procedure Act (“APA”). Any guidance (national or regional) should first go through a notice and comment process before being used in the Eagle Permit Program, and the Service should carefully consider comments received to understand the practical implications of any final guidance. Section IV.
  - iii. Instead of focusing on new guidance, however, the Service should move away from issuing guidance documents related to the Eagle Permit Program and work on reducing the guidance that exists. In practice, the existing guidance has added moving targets creating complexity, time, and cost to the Eagle Permit Program. Applicants should not have to assemble permitting requirements from a collection of various different regions. Section IV.
  - iv. Guidance has been inappropriately focused on the wind energy industry, despite the industry not being the leading contributor to eagle fatalities. Section IV.
3. *What targeted revisions could be made to existing regulations consistent with the overall permitting framework and PEIS that would reduce the time and/or cost associated with applying for and processing long-term permits for incidental take of eagles?*
- i. Allow for take predictions to be generated from methods other than the collision risk model. Section III(1).
  - ii. Increase transparency and allow applicants to provide take prediction results as part of application submittal rather than only accepting model results generated by the Service. Section III(1).
  - iii. Favor take predictions that rely on site-specific data over generic “priors” to ensure the best available science is used to set Eagle Permit take limits. Section III(1).
  - iv. Shift the local area population analysis away from permit-level application. Section III(2).
  - v. Removal of the third-party monitoring requirement. Section III(3).
  - vi. Acceptance of an approach to post-construction fatality monitoring for wind energy facilities that does not rely on the EoA approach to determine compliance with permit conditions and that is more commensurate with the expected impacts to eagles. Section III(4).
  - vii. Reduce take predictions at the outset of Eagle Permit issuance based on a commitment to employ minimization efforts. Section III(7).
  - viii. Approval of additional compensatory mitigation approaches such as roadside carcass removal/relocation, nest/habitat preservation, and lead abatement programs. Section III(9).

4. *Are there potential new regulatory approaches to authorizing incidental take under the Eagle Act, particularly for projects that can be shown in advance to have minimal impacts on eagles, that would reduce the time and/ or cost associated with applying for and operating under long-term permits for incidental take of eagles?*
  - i. Yes, a general permit program is essential to aiding the Biden Administration in achieving its clean energy and climate change goals. A general permit program should be of paramount importance for the Service. Section II.
  - ii. A general permit program should be developed for both species of eagles. Section II.
  - iii. The Service’s “low-risk” maps from December 2018 are based on outdated data and multi-layered, conservative assumptions that make the Service’s proposal irrelevant to addressing the needs of the Eagle Permit Program and encouraging participation. As previously communicated to Migratory Bird staff on numerous occasions, the mapping exercise does not deliver the efficiencies necessary to have a successful permit program. Section II.
  - iv. The Service should continue to collaborate with the electric transmission and distribution industry sector on efforts to avoid and minimize risk to avian species, including eagles. Section III(8).
5. *We are seeking data to estimate the current industry costs on preapplication/pre-construction surveys for eagles, monitoring requirements of the permit itself, including paying for required third party monitors, and compensatory mitigation. We are seeking data on how costs will change if additional efficiencies are implemented. We are also requesting the submission of data regarding the number and type of small businesses affected, the scale and nature of economic effects in the current permitting process, and how costs would change for small businesses if additional efficiencies are implemented.*
  - i. Please reference Appendix A for a summary of the estimated costs associated with seeking an Eagle Permit.

**II. Establishing a general permit program for the wind energy industry is critical to achieving Biden Administration clean energy goals and would be a win for eagle conservation.**

A general permit program for wind energy Eagle Permits is critically needed and would benefit all stakeholders. The Service has recognized that the wind energy industry is not one of the leading causes of eagle mortalities.<sup>4</sup> But, the existing Eagle Permit Program is overly complicated and the result is that Eagle Permit applicants are spending millions of dollars per project on collecting data and processing costs rather than spending money on conservation. Considering only the wind industry, which, as of the end of Q2 2021, has an installed capacity of 127.8 GW in the U.S. (or roughly 1,200 facilities),<sup>5</sup> and following the Service’s current policy on when to recommend that a facility should seek an Eagle Permit (i.e., the risk of killing one eagle in 30 years), the Service could be expected to process 821 permits just for projects currently in operation or currently under

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<sup>4</sup> PEIS p. 76.

<sup>5</sup> Based on data from ACP available at <https://cleanpower.org/cleanpower-iq/>.

construction. To reach the Biden Administration’s goal of 305 GW of wind energy capacity by 2030, under current policy, the Service would recommend approximately 514 additional facilities seek Eagle Permits.<sup>6</sup> That would mean the Service could reasonably be expected to process over 1,300 additional permit applications in the next 10 years.

Less than 30 Eagle Permits have been issued in 12 years (i.e. an average of less than three per year). Currently, several dozens of Eagle Permit applications are pending across Service regions, and many of those applications have been pending for multiple years with the expectation that it will be several more years before Eagle Permit issuance. With the anticipated buildout of wind energy across the United States and the prevalence of both eagle species, the current process will evolve from very lengthy to untenable; to the point that it could prevent the agency from performing its legal obligations. When Eagle Permit applications from other industries are considered, the potential application burden becomes incalculable. All the while, project proponents are exposed to potential enforcement, but cannot obtain an Eagle Permit in a reasonable time frame.

The costs incurred to obtain and comply with a permit is routinely in the millions of dollars, *even where mitigation is not required*, based on processing and monitoring costs alone. Wind energy facilities are not causing population-level impacts on eagle populations. The recent Service population report indicates that bald eagles have more than quadrupled their populations.<sup>7</sup> At the same time, wind energy buildout has tripled. A general permit program would allow the Service to expeditiously authorize eagle take for wind energy facilities, which would increase the number of participants in the Eagle Permit Program and could be expected to increase both conservation of eagles and renewable energy deployment. A general permit process would also allow the Service to focus its limited staff resources on more complex permitting situations where the expertise is truly needed.

The ACP has worked diligently with other stakeholder groups, including the conservation community, to develop a general permit framework (“Framework”) for the wind energy industry that is practical to implement, while addressing the Service’s conservation objectives. Recognizing that the wind energy industry ranks among the lowest sources of mortality for golden and bald eagles, and that a significant proportion of wind energy development will have minimal impacts to golden and bald eagles, the Framework is designed such that a significant majority of wind energy development could participate through the Framework. The Framework moves away from the complex modeling and monitoring efforts that require extensive demand on limited Service resources, which are a significant source of many of the permitting delays. Instead, the Framework focuses on permittee risk management and eagle conservation. Given the significant wind energy development that has occurred since 2009 has not had population level impacts on either eagle species, a general permit approach such as the Framework is warranted.

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<sup>6</sup> Assumes that 80% of existing and future projects would be classified as “low exposure,” as outlined in the Service’s December 2018 “Proposed Expedited Eagle Permit Process for Low-Risk Sites” webinar, but will still fall within the Service’s recommendation to seek an Eagle Permit.

<sup>7</sup> U.S. Fish and Wildlife Service. 2020. Final Report: Bald Eagle Population Size: 2020 Update. U.S. Fish and Wildlife Service, Division of Migratory Bird Management, Washington, D.C. U.S.A., p. 3. Available at, <https://www.fws.gov/migratorybirds/pdf/management/bald-eagle-population-size-2020.pdf>.

Perhaps most notably, an important detail of the Framework is that it includes conservation funding for both eagle species, even where compensatory mitigation would not otherwise be required under the Eagle Permit Program. This Framework would not only result in decreased time and cost of processing Eagle Permits, but also it would result in increased conservation funding for eagles. This Framework would benefit all stakeholders as well as the Service.

The ANPR uses the U.S. Army Corps of Engineers nationwide permit program (“NWP”) as an example of a successful general permit program.<sup>8</sup> In the ANPR, the Service voices concerns about the one-time monitoring effort available under the NWP versus the ongoing monitoring efforts that would be required under a similar eagle program. In EWAC’s view, the apparent singular focus on fatality monitoring misses the mark. The NWP program makes certain assumptions about the loss of wetlands function based on an acreage threshold despite the fact that the quality and function of wetlands varies from one to the next. Similarly here, a significant proportion of wind energy facilities are not having population-level impacts to eagles, and, certain project-level assumptions can be made about impacts to eagles that can be periodically checked on a larger scale without subjecting every permitted project to costly counting exercises. Other programs such as Clean Water Act Section 401 Water Quality Certifications and Section 402 general storm water construction permits rely on permittee-responsible measures to authorize activities without complex permitting or monitoring schemes.

Any ultimate general permit framework must be available for a significant proportion of wind energy facilities to be successful. In the ANPR, the Service notes that its December 2018 low-risk mapping approach would potentially allow 40% of projects to qualify for the Service’s low-risk concept.<sup>9</sup> The Service has never put the low-risk mapping approach out for public comment. Regardless, the wind energy industry maintains, as they have informally done so on numerous occasions, that the approach would not achieve the efficiencies and the level of participation that the Service assumed and that the wind energy industry needs. The Service’s low-risk mapping approach would only provide a simplified regulatory pathway for a very small portion of the existing wind energy buildout and even less for future development. Focusing on geographical areas of “low risk” is unnecessary because, with few exceptions, wind projects throughout the country are having and will have minimal impacts on eagles. Reducing availability to certain mapped areas will not achieve successful outcomes. The goal must be to provide a pathway that maximizes participation while recognizing *existing wind facilities have not prevented bald eagles from more than quadrupling their population and have not caused declines in golden eagle populations*.

### **III. The 2016 Eagle Rule and associated processes should be revised to improve the incidental take permitting process.**

A general permit program for wind energy is of paramount importance to achieve the Biden Administration’s clean energy goals. However, EWAC understands that not every wind energy project should qualify for coverage under a general permit program, and individual Eagle Permits may be the only permit option for some wind energy facilities. Moreover, 50 C.F.R. § 22.26 applies to all societal activities that result in take of eagles, not just wind energy facilities.

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<sup>8</sup> 86 Fed. Reg. 51,094, 51,096 (Sept. 14, 2021).

<sup>9</sup> *Id.*



Considering this, EWAC has identified aspects of the Eagle Permit Program that are impeding Eagle Permit processing. As will become apparent below, many of the Eagle Permit Program components are interrelated, and issues with one component affects others. Together these issues have compounded into an Eagle Permit Program that results in high costs, power production losses, legal risk, and enforcement exposure that are disproportionate to the impacts to eagle populations for which applicants are seeking authorization. Below we describe these problematic aspects and propose revisions that would resolve some of these issues.

1. The Service's approach to using the CRM creates problematic results that impede the Eagle Permit process.

The 2016 Eagle Rule requires that if the Service has, through rulemaking procedures, officially issued or endorsed survey, modeling, or other data quality standards for the activity being permitted, those are the standards and protocols that must be used, unless waived.<sup>10</sup> In the wind industry's case, the Service has developed the collision risk model ("CRM") to predict take. The Service made clear in the 2016 Eagle Rule that it has chosen to apply the CRM in a way that will result in an over-estimate of take predictions most of the time. EWAC understands this is how the Service has elected to manage its perceived duty to meet the Preservation Standard. However, the Service continues to implement the CRM in a way designed to over-estimate take predictions, and the Service then continues to rely on the CRM predictions to recommend Eagle Permits for any project estimated to take more than one eagle over 30 years. This means the Service recommends an Eagle Permit for nearly every project. With no option for a streamlined permit program, a project proponent that reasonably expects to have minimal impacts to eagles is subject to the same permitting process as a project with higher impacts to eagles. The Service should reconsider whether the CRM is the appropriate tool, particularly for projects expected to have minimal risks to eagles.

In the 2016 Eagle Rule, the Service set a data standard threshold that an applicant must meet for site-specific, pre-construction data to be used in the CRM predictions. If data gathered at a project are insufficient to meet this threshold, then the Service will reject the site-specific data and instead will rely solely on generic inputs (i.e., priors) from the Service dataset to predict take at a project. In other words, if project data taken from the project area falls short of the Service's set threshold, then the Service will use generic data collected in other regions under markedly different conditions and ecological settings to predict the take that may occur at a project.

Many project proponents who are developing or have acquired projects that had been in development for many years prior to the 2016 Eagle Rule find themselves with site-specific data that the Service will not factor into CRM predictions. New projects also struggle to have their site-specific data included into take predictions because of an inability to meet the 2016 Eagle Rule spatial coverage requirements for pre-construction surveys. Given that turbine layouts and project boundaries are constantly evolving through development to address the numerous non-wildlife constraints that must be considered, a project proponent may ultimately be unable to meet the spatial requirements of the 2016 Eagle Rule while developing a dataset that will work for the project's final layout. Significant time and money has then been spent on collecting site-specific data that is then summarily rejected from consideration. Discrediting site-specific data in favor of

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<sup>10</sup> 50 CFR § 22.26(c)(2)(ii).

generic data contradicts the long-standing principle that site-specific data are the best available science. Peer reviewed science has shown that using site-specific data better predicts eagle fatalities than generic priors.<sup>11</sup>

Further, the Service will not use an applicant-generated take estimate to inform the ultimate Eagle Permit authorization. Instead, the Service requires that all CRM predictions be generated from the National Eagle Service Team (“NEST”), a single group of Service staff whose staffing is not made clear to the public. Currently the backlog with the NEST is resulting in lengthy, sometimes multi-year, delays in permit processing. EWAC members have also experienced significant discrepancies in predictions produced by the NEST without any explanation as to why this is the case or without any opportunity to engage to either “check their homework” or discuss the discrepancies. Most troubling is that, despite having the assistance of qualified expert statisticians and wildlife biologists, applicants cannot replicate the NEST’s CRM prediction. This number then becomes the Eagle Permit take limit. Often, prospective permittees will not see the Eagle Permit take limit until the Service publishes the Eagle Permit documents for public comment. Applicants are then forced to choose between proceeding with the permitting process even when the limits, terms, and conditions are unacceptable, or publicly air grievances with the Service, damaging reputations, and increasing litigation risk. This is unlike any other environmental permitting regime and creates an untenable situation for applicants seeking Eagle Permits.

To summarize and expand on the concepts above, the Service’s approach to CRM has created a number of problems and concerns:

- ***The over-estimates of take create unnecessary costs and litigation risk.*** The Service favors a CRM approach that over-estimates take, even when considering the recent changes made to how the CRM is applied. These higher take predictions draw unnecessary negative attention to both the project proponent and the Service by artificially inflating the take that is likely to occur. Overestimated take predictions can unfairly “demonize” a project. Negative public perception has implications for a project’s community support, litigation risk, industry reputation, and results in unnecessary criticism of the Service. Higher predictions also result in higher mitigation requirements because the Service is requiring mitigation commitments that are proportional to modeled (rather than actual) take.<sup>12</sup> These higher mitigation requirements then become permit conditions, which in turn means an applicant must budget at the outset for commitments to mitigation levels that neither it, nor the Service, thinks are realistic. An applicant seeking an Eagle Permit should not be required to accept Eagle Permit conditions it does not believe are reasonable. Applicants should be allowed to proffer their own estimates for take authorization, request the take authorization that they think is commensurate with their risk evaluations, and manage their take levels through their permit’s adaptive management provisions. Like the ESA incidental take permit program, these permits are voluntary and should be applicant-driven; the applicant should control its request for authorization. The Service needs to revisit the

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<sup>11</sup> Biological Opinion for the MidAmerican Energy Company Incidental Take Permit and Habitat Conservation Plan, Nov. 7, 2019, p. 44. Available at, [https://ecos.fws.gov/docs/plan\\_documents/bobs/bobs\\_2966.pdf](https://ecos.fws.gov/docs/plan_documents/bobs/bobs_2966.pdf).

<sup>12</sup> This also contradicts 50 C.F.R. CFR § 22.26(e) and (f), which require that mitigation be based on “remaining unavoidable impacts.” See Section III(6) for more detailed discussion on this point.

CRM approach currently required by the Eagle Permit Program and work with the regulated community to incorporate a more realistic and applicant-driven approach.

- ***The Service’s approach for wind energy favors generic data over site-specific data.*** Oftentimes one of the data insufficiencies relates to pre-construction spatial survey coverage of the final project area. The 2016 Eagle Rule requires, among other things, that two full years of pre-construction data be covered across at least 30% of the final project area. Developing wind energy projects is a dynamic process requiring the balancing of many constraints. The turbine layout and number of turbines will shift many times during development to accommodate landowners, engineering requirements, and the myriad other federal, state, and local requirements that must be met. The dynamic nature of the development process means that the Service requirements for pre-construction survey data cannot always be strictly met. Even so, in nearly all circumstances, project-specific data remains a better indicator of eagle use at a given project site than generic data. The Eagle Permit Program should favor use of site-specific data over generic data since, as a rule, site-specific data constitutes the best available scientific information.
  - ***The Service’s approach lacks transparency and is inefficient.*** As described above, the Service will not accept applicant-run CRM predictions. Instead, the NEST exclusively generates CRM predictions for all Eagle Permits across the country. This approach creates two issues: (1) there is a significant backlog of permit applications waiting for this single team to generate CRM predictions; and more importantly, (2) applicants are unable to verify that the models have been run correctly (mistakes happen) and to assess the model assumptions. The Eagle Permit Program would run more smoothly if: (1) applicants could provide their own take predictions (whether based on CRM or otherwise) and provide the Service with an opportunity for comment; (2) more than a single group of Service staff were trained to review the applicant-presented predictions; and (3) the process is conducted transparently with an opportunity for the applicant and its consultants to engage with the staff to resolve discrepancies and arrive at a mutually agreeable take estimate before a draft permit and supporting documents are proposed for public comment.
  - ***The Service’s insistence on using the CRM does not allow for flexibility.*** Many wind energy facilities have diligently collected post-construction fatality monitoring data. Many wind energy facilities are located near other similarly situated facilities with overlapping ownership. Other wind energy facilities have specific characteristics that help inform the eagle risk at that project area. In all of these cases, project- or area-specific fatality data may be a better predictor of take risk than the CRM, particularly when the CRM prediction relies on generic use data, and assumes a relationship between risk and use. Again, applicants should be allowed to proffer their own estimate for take authorization, request the take authorization that they feel is commensurate with their risk evaluations, and manage their take levels through their permit’s adaptive management provisions.
2. The local area population concept should be removed from the Service’s definition of the Preservation Standard.

The BGEPA does not state that the Service has the authority to regulate eagles on the eagle management unit (“EMU”) or local area population (“LAP”) level. Unlike the ESA, the BGEPA

does not indicate that sub-species populations are subject to Service authority. However, the Service has defined the Preservation Standard to include EMU and LAP analyses. By incorporating the LAP into its Preservation Standard, the Service has created a framework that, in most cases, ignores the population size, genetics, or that eagles are a panmictic species.<sup>13</sup>

From a process standpoint, the LAP analysis process raises significant concerns by virtue of its incorporation of data that are unavailable to the public. The LAP analysis consists of two analyses: (1) cumulative authorized take, including the applicant's take levels; and (2) cumulative unauthorized take. The total cumulative authorized take and cumulative unauthorized take are then divided by the eagle population of the LAP. If the result of the calculation for (1) is greater than 5%, or the result of the calculation for (2) is greater than 10%, there are potential consequences for the applicant's permit. The 2016 Eagle Rule provides three potential consequences for those LAP analyses that exceed either the 5% or 10% thresholds:

- i. Compensatory mitigation may be required when cumulative authorized take, including the proposed take, would exceed 5% of the local area population; or when available data indicate that cumulative unauthorized mortality would exceed 10% of the LAP.
- ii. The Service may not be able to issue the Eagle Permit if exceeding the LAP thresholds results in an inability for the permit to meet the Preservation Standard.
- iii. The PEIS will cover the analysis of effects to eagles under the National Environmental Policy Act ("NEPA") only if the project does not result in Service authorized take (individually or cumulatively) in excess of 5% of the LAP.<sup>14</sup>

As more Eagle Permits are issued, the potential for LAP threshold exceedances will increase and these potential consequences will be considered more frequently. We are aware of areas of the country where the existence of only one or two issued Eagle Permits have already exceeded the LAP for golden eagles, and EWAC members have also already encountered scenarios in various regions where the take predictions for bald eagles exceed the 5% LAP threshold, something the 2016 Eagle Rule states is unexpected.<sup>15</sup> In the latter instance, some of these exceedances have arisen due to errors in calculation. The following are examples of why those exceedances were erroneously calculated:

- Outdated datasets. EWAC members have experienced the Service using an outdated bald eagle population dataset in conducting the analysis that under-represented the extant population. Combined with the over-predictions generated by the CRM, CRM-predicted take surpassed the 5% threshold for bald eagles based on this population dataset.

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<sup>13</sup> Jacqueline M. Doyle et al., *Genetic structure and viability selection in the golden eagle (Aquila chrysaetos), a vagile raptor with a Holarctic distribution*, 17.6 Conservation Genetics 1307 (2016); Megan E. Judkins et al., *A 50K SNP array reveals genetic structure for bald eagles (Haliaeetus leucocapillus)*, 21 Conservation Genetics 61 (2020).

<sup>14</sup> 81 Fed. Reg. 91,494, 91,540 (Dec. 16, 2016).

<sup>15</sup> *Id.* at 91,503 (discussing how the Eagle Permit Program would work if bald eagle LAP thresholds were "unexpectedly exceeded.").

- Inconsistent application of confidence intervals. The Service has used the 80% confidence interval for predicting take (numerator) but then applied a 20% confidence interval when quantifying the population dataset (denominator),<sup>16</sup> which again results in LAP analyses pushed past the 5% threshold.
- Erroneous dataset. The Service had a database showing that an applicant had several other facilities contributing tens of eagle fatalities within the LAP. This applicant had no other facilities within the LAP. Because the Service typically refuses to share its LAP analysis with the applicant, these errors in the database would not have been realized and would have erroneously been factored into the LAP analysis, but for the Service asking the applicant about these additional (nonexistent) facilities in this particular instance.

These are just a few examples—*given that the LAP analysis typically is not shared with the applicant*—there are likely other discrepancies in how the Service conducts the LAP analysis.

We understand that the 2016 Eagle Rule suggests that the consequences for LAP threshold exceedances are not mandatory, and that the Service retains some discretion on permit availability and mitigation. We also understand that some Service personnel expect that the consequences will rarely be applied. Nonetheless, even if the Service believes it will rarely conclude that additional mitigation is required or a permit is unavailable, the mere potential for these consequences means real impacts to projects. Here are some actual scenarios for your consideration that help further illustrate EWAC’s concern:

- Third-party financing. Consider a scenario where the CRM has estimated bald eagle take<sup>17</sup> and the Service has concluded that, combined with other authorized take in the LAP, the take estimate exceeds the 5% threshold. Because of this, the Service requires the permittee to commit to provide compensatory mitigation for its predicted bald eagle take. The estimated cost for providing mitigation for predicted bald eagle take exceeds \$3,000,000. Even though this cost may not be realized based on adjustments at the five-year review, a third-party investor will factor in the worst-case scenario into its cost-modeling and that \$3,000,000 will have consequences for the project developer’s financing, and in turn, increase the cost of energy for the facility which will ultimately be borne by the public through increased electricity prices. The projected Eagle Permit costs may be enough for the project proponent and/or financing parties to conclude the project is not economically feasible.
- Investor-Owned Utilities. Investor-owned utilities (“IOUs”) that operate wind energy facilities that may pose a risk to eagles have a similar, but different considerations. Instead of third-party financing parties, in the scenario above, an IOU must consider whether costs are reasonable before they can recover those costs from rate-payers. If the CRM and subsequent discussions with the Service indicate that compensatory mitigation costing

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<sup>16</sup> These confidence intervals mean that a conservative (over-estimate) take prediction is used with a conservative (under-estimate) population number. These layers of conservatism then compound to exceed the thresholds.

<sup>17</sup> EWAC recognizes the Service has recently updated the priors for bald eagles, but use of site-specific data with the updated bald eagle priors continues to result in predicted numbers that are not reflective of actual fatalities discovered.

\$3,000,000 may be required as a permit condition, this and other Eagle Permit costs must be determined to be reasonable if those costs are to be shared by rate-payers.

- Operating budgets. Consider the first scenario but with an operating project that has multiple years of standardized, post-construction monitoring data that indicate very low take of bald eagles. A bald eagle fatality is discovered after several years of post-construction monitoring. The applicant applies for an Eagle Permit. Because of existing authorizations within the LAP, the take estimate exceeds the 5% threshold. Because of the LAP exceedance, the Service requires the permittee to commit to provide initial funding (\$1,000,000) for compensatory mitigation for bald eagle take as a condition to the Eagle Permit with the possibility that this may be adjusted downward at the five-year review. The facility must then budget for this compensatory mitigation commitment out of its fixed operating budget,<sup>18</sup> despite all indications that the actual bald eagle take will be lower than predicted and that any take will not have any measureable impact on bald eagle populations.
- Litigation Risk. Consider a scenario where the CRM results indicate the LAP 5% threshold has been exceeded, possibly due to the conservative CRM predictions compared to an older eagle dataset. While the take predictions generated from the CRM are expected to be higher than the actual mortality that will occur at a project, those high predicted numbers attract attention from project opponents. The 2016 Eagle Rule states that permits that exceed the 5% threshold (individually or cumulatively) cannot tier off of the PEIS. Project opponents have used this factor to challenge the permit for insufficient NEPA analysis.<sup>19</sup>

The potential consequences that stem from the LAP analysis far outweigh the biological value the analysis serves given that eagles are a panmictic species and their genetic makeup is not driven at the LAP scale. The Service does not have the resources to keep the population data up-to-date at the pace required to fairly assess LAP analysis on incoming permit applications. Moreover, as more and more projects appear on the landscape, exceedance of the LAP may become more common, in part due to the multiple levels of conservatism built into the modeling processes (CRM and LAP). The lack of transparency in the process creates significant uncertainty. It leaves open to interpretation whether or not a permit is available or mitigation is required where LAP thresholds are exceeded, even if those exceedances are based on CRM results that are expected to be overestimates or based on generic data. And, the additional NEPA risk posed by the LAP

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<sup>18</sup> A project must meet the power commitments set forth in its power purchase agreement, and once a project reaches commercial operation, the project is operating off of a fixed budget. Given Eagle Permits are taking many years to process and the CRM and LAP analysis are often not shared with the applicant until later in permit processing, an applicant must rely on its own assessments of risks and budget accordingly. These fixed budgets cannot withstand cost uncertainty of the magnitude encountered in the Eagle Permit Program.

<sup>19</sup> In *Front Range Nesting Bald Eagle Studies v. U.S. Fish and Wildlife Service, et al.*, No. 1:18-cv-00356 (D.C. Colo. 2018), permittees received an Eagle Permit for disturbance of a bald eagle nest that may arise from construction of a residential development. During the permit process, the Service found bald eagle take levels exceeded the LAP. Plaintiffs alleged several NEPA violations, including that the Service did not adequately conduct its NEPA analysis and the court noted the LAP exceedance in discussing the adequacy of review. The court ultimately vacated the permit and NEPA analysis on other grounds. But, the fact that the first (and to our knowledge only) ruling on a permit issued under the 2016 Eagle Rule includes a challenge based on the adequacy of a NEPA review where the LAP is exceeded illustrates EWAC's concern.

analysis is unnecessary, particularly when one considers the limited biological value provided by the LAP analysis. EWAC urges the Service to remove the LAP analysis from the Eagle Permit Program.

If the Service elects not to remove the LAP analysis, then the Service should reconsider how the regulations treat exceedances of the LAP thresholds. The Service should move away from requiring additional action at the permit level based on an LAP analysis, and instead use the LAP analysis as a purely analytical tool. The Service could use the data gathered from Eagle Permit fatality monitoring to inform its understanding of LAPs without triggering potential mitigation, jeopardizing permit availability, or requiring additional NEPA review. If the LAP is retained, then it will be important for the Service to regularly update its population numbers to ensure any LAP analysis is reflective of eagle populations.

3. The third-party monitoring requirement is problematic and unnecessary.

The 2016 Eagle Rule introduced a third-party monitoring requirement for permits with a duration greater than five years:

Monitoring to assess project impacts to eagles and the effectiveness of avoidance and minimization measures must be conducted by qualified, independent third parties, approved by the Service. Monitors must report directly to the Service and provide a copy of the reports and materials to the permittee.<sup>20</sup>

This requirement creates concerns for potential permittees, and it applies to all long-term Eagle Permits issued under the 2016 Eagle Rule, not just wind energy facilities. The complications caused by the third-party monitoring requirement have discouraged participation in the Eagle Permit Program and have led prospective permittees to consider five-year permits rather than obtain regulatory certainty for the life of their projects.

The third-party monitoring requirement is a stark departure from other environmental quality permitting regimes such as air and water quality permits. This disparate treatment lacks justification. Self-certification of monitoring efforts and results yields high compliance, clear accountability for the veracity and accuracy of the data reported, and is more cost effective. The threat of civil and criminal penalties remains for improper reporting. Third-party monitoring does not increase the reliability of the information; rather it unnecessarily increases permit compliance complexity. Other permit programs requiring far more complicated and technical monitoring regimes designed to protect public health and safety have not second-guessed a permittee's ability and integrity in completing required monitoring requirements. This third-party monitoring provision should be removed from 50 C.F.R. § 22.26.

The 2016 Eagle Rule third-party requirement language means that a permittee will have no quality control over a third-party report. It is not uncommon for reports to have typos or relic language cut and pasted from other reports that may contain inaccuracies. Given these reports then become a part of the administrative record, a permittee is given little opportunity to ensure the report

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<sup>20</sup> 50 C.F.R. § 22.26(b)(7)(i).

accurately reflects a permitted project. This is significant given these reports are the main method by which the Service determines permit compliance.

Further, wind energy facilities and power line rights-of-way predominantly occur on private lands, and access and use of the underlying landowner's property are governed by the terms of the access instrument (e.g., easement, lease). Not only must property rights be respected, but also there are significant safety,<sup>21</sup> access, and liability considerations that arise when having third parties access project footprints. Moreover, studies show that properly-trained, facility personnel can effectively find and identify eagle carcasses at wind energy facilities.<sup>22</sup> Third-party monitors are not the only way to effectively monitor compliance.

4. The Service's insistence on EoA for post-construction mortality monitoring at wind energy facilities and disproportionate focus on eagle monitoring is a significant impediment to the Eagle Permit Program.

The objective of compliance monitoring is to demonstrate compliance with the permitted take. The 2016 Eagle Rule acknowledges that the level of monitoring effort should be commensurate to the magnitude of impacts to the species, where it states, "The frequency and duration of required monitoring will depend on the form and magnitude of the anticipated take and the objectives of associated avoidance, minimization, or other mitigation measures, not to exceed what is reasonable to meet the primary purpose of the monitoring . . ." <sup>23</sup> Studies have demonstrated that eagle carcasses generally persist on the landscape and can be readily found by trained searchers. However, the Service has increasingly insisted on the use of EoA for post-construction fatality monitoring.

The EoA's use of the *g*-value (overall or site-wide probability of detection) creates a confounding problem: the lower the expected impacts to eagles, the higher the effort required under EoA to "prove" that the permittee did not miss eagle carcasses. Thus, maximal monitoring effort is required for projects that are expected to have minimal impacts to the species, which is not only a discouraging and inequitable result, but also an illogical one. EoA for a 30-year permit for a project predicted to take minimal eagles results in *millions of dollars* spent on monitoring efforts purely to overcome the uncertainty of EoA.

In some instances, the *g*-value required by the Service is not even attainable because of project characteristics beyond the applicant's control.<sup>24</sup> Further, use of EoA ensures that permittees are unable to know whether they are in compliance with permit terms because the estimates produced by the results of EoA monitoring are not known until well after the monitoring season. This situation occurs because of the complicated statistics and because EoA essentially speculates about what might have happened (i.e. what is the probability that there might have been missed eagles).

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<sup>21</sup> Significant safety training would be required for anyone conducting fatality monitoring under power lines.

<sup>22</sup> Eric C. Hallingstad et al., Developing an efficient protocol for monitoring eagle fatalities at wind energy facilities, PLoS ONE, Dec. 12, 2018, at 1. Available at, <https://doi.org/10.1371/journal.pone.0208700>.

<sup>23</sup> 50 C.F.R. § 22.26(c)(2)(ii). This position is also consistent with the Service's Five Point Policy, which states, "The scope of the monitoring program should be commensurate with the scope and duration of the operating conservation program and the project impacts." 65 Fed. Reg. 35,242, 35,254 (June 1, 2000).

<sup>24</sup> Topography, crops, weather events, and other factors can limit the *g*-value attainable at a project site.



This, then, introduces significant uncertainty in the value of eagle fatality monitoring results required by the permit that has nothing to do with actual eagles that may have been killed at a project. Results can be deemed “insufficient” for purposes of meeting *g*-value for reasons beyond the permittee’s control (weather conditions, scavenger rates, anomalous searcher efficiency, etc.). Some Service regions have taken the position that not meeting the *g*-value goal set forth in an Eagle Conservation Plan (“ECP”) is “non-compliance,” *even if the monitoring estimates produced by the monitoring effort are sufficient to demonstrate the permittee is in compliance with its permit.*

For the Eagle Permit Program to be workable, a permittee must be able to reasonably and reliably ascertain their day-to-day compliance with permit requirements reasonably and reliably. The insistence on using EoA at either an annual (typical for permits issued under the 2009 Eagle Rule) or five-year (typical for issued under the 2016 Eagle Rule) frequency to determine whether the permittee’s estimated take is on a trajectory to not exceed the permitted take limit ensures that a permittee cannot know whether they are within their predicted trajectory unless and until the Service completes its analysis, review, and approval after the fact.<sup>25</sup> This creates another unnecessary step in the process where Service resources are stressed in order to run the Eagle Permit Program, and eliminates meaningful opportunities for a permittee to adaptively manage its permit to achieve and maintain compliance.

The level of effort required by EoA, and the uncertainty presented by the results, is unnecessary and disproportionate to the impacts to the species and does not create a conservation benefit for either species of eagle. It also creates an unnecessary drain on Service and project resources. The Service should not insist on EoA monitoring as a condition to an Eagle Permit. At a minimum, projects expected to have lower take numbers should not be required to demonstrate compliance through EoA monitoring. Other proven options exist to verify that eagle impacts at a project are within permitted expectations that involve a more proportional level of effort and cost. The Service has adopted an approach that saddles the projects with the least expected impact with both disproportionately high monitoring costs and compliance uncertainty.

5. Pooled monitoring may be a helpful analytical tool, but it should not be used as a compliance tool.

The ANPR solicits input on a pooled monitoring concept. Pooled monitoring can mean many things and be implemented a variety of different ways. Any pooled monitoring approach should be limited to use as an analytical tool and not be used to determine a particular permittee’s compliance. A pooled monitoring approach could potentially be used to verify the Eagle Permit Program, as a whole, is consistent with the Preservation Standard at the EMU scale.

Pooled monitoring should not be used as a compliance tool across projects that do not have common ownership; it is inappropriate for a permittee’s compliance and enforcement exposure to be influenced by other projects for which the permittee has no control. Further, pooled monitoring cannot impose a requirement that third parties have unfettered access within project areas. Safety, landowner rights, operations, and other constraints must be given due consideration. While using pooled monitoring for compliance purposes under the above-described circumstances would be

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<sup>25</sup> Further, the EoA inputs are not black or white so in some cases qualified statisticians would approach EoA differently.

inappropriate, using pooled monitoring to demonstrate compliance might be reasonable in circumstances where projects are under common ownership and are in similarly-situated settings. In those limited circumstances, the concerns noted here might be resolved in a way where pooled monitoring could be used for compliance. However, pooled monitoring must always have permittee consent before it can be considered as a compliance monitoring option.

6. The Service must amend the Five-Year Review provisions to clearly state that the Service cannot adjust take authorization mid-way through permit terms without permittee consent and that mitigation adjustments are based on actual eagle deaths, not predictions produced by any modeling or estimating effort.

The 2016 Eagle Rule requires that Eagle Permits with terms greater than five years go through a five-year review process. The 2016 Eagle Rule describes the types of changes that can be made to a permit during that review process, depending on whether the fatality monitoring results indicate that the take rate is at a trajectory that indicates authorized take levels have been exceeded. Subparts (B) and (C) are clear that where a permittee is in compliance with its permit, the Service's authority to change permit terms and conditions without the permittees' consent is very limited. However, Service offices have expressed to EWAC members that the regulations give the Service the authority to adjust the overall authorized take numbers in the issued permit and to change minimization and adaptive management measures during a five-year review without permittee consent, *even where the permittee is in compliance with its permit terms and conditions*. This position is inconsistent with the regulations, but can be remedied with some minor clarifications.

One of the reasons given by Service staff to support the position that take authorization can be unilaterally adjusted is that mitigation cannot be adjusted downward without adjusting the take authorization. This, however, is untrue. Not only is 50 C.F.R. § 22.26(c)(7)(iii) Subpart (C) clear when it only gives the Service the authority to adjust mitigation crediting, but also 50 C.F.R. § 22.26(e) and (f) are clear that mitigation obligations are based on "remaining unavoidable impacts after all appropriate and practicable avoidance and minimization measures have been applied." The 2016 Eagle Rule, therefore, requires that mitigation obligations are tied to *actual* impacts, not the predictions of the CRM or the estimates produced by EoA monitoring. Thus, a more accurate reading of the regulations is that they do in fact allow for, and arguably require, adjustment of mitigation credit without adjusting the take authorization number.

As discussed above, project budgets, project financing, minimization planning, mitigation expectations, and monitoring costs are all determined based on the initial CRM predictions and permit conditions. As also discussed above, the Service's current insistence on EoA monitoring has significant cost and compliance implications, and these are closely tied to the take authorization limit and are influenced by project conditions, topography, weather conditions, etc. For applicants, this uncertainty in the permit terms and conditions feels akin to writing a blank check. After having spent years and significant costs (*see* Appendix A) developing the supporting documentation and securing an Eagle Permit, as currently administered, those terms and conditions may disappear five years into the permit term. Moreover, given increasing eagle populations, the terms and conditions of project purchasing or financing agreements, and the difficulties in demonstrating compliance using EoA, permittees may elect to retain their original take authorization even where estimated take numbers have come in below predictions.

The uncertainty beyond year five means all Eagle Permits are functionally five-year permits, regardless of the duration requested and issued. This uncertainty undermines the regulatory assurances afforded by the longer-term permits and has prompted several applicants to seek five-year permits instead of seeking coverage for the life of their projects. EWAC believes this uncertainty can be remedied by minor clarifications to the 2016 Eagle Rule. The regulations should be clear that the Service and permittee must both consent to any changes to take authorization where a permittee has not exceeded its 30-year take limit, and that unilateral changes are not allowed. These clarifications would better incentivize Eagle Permit Program participation and increase certainty and predictability for the Service.

Finally, the rule language in Subparts (c)(7)(iii)(B)-(D) suggests that determining whether a permittee has exceeded its authorized take levels is based on the “*period of review*.” Service offices have indicated this will be the relevant five-year period not the overall permit term. EWAC questions why a 30-year permit can be reopened based on exceeding a five-year number when the ultimate 30-year take limit has not been exceeded. For example, consider a project that is predicted to take six eagles over five-years and is authorized to take 36 eagles over its 30-year Eagle Permit. If the project takes seven eagles during one five-year period, two during another five-year period, the permittee should be deemed “in compliance” with its Eagle Permit and not subject to changes to its permit terms and conditions at either five-year review. This is particularly so since the 2016 Eagle Rule requires the permittee to have an adaptive management program for the purpose of bringing take levels into a trajectory to stay within the permit term limit during the next 5-year review period. In the above scenario, the required adaptive management provisions should be the relevant focus of any five-year review. Administrating Eagle Permits based on the five-year take prediction eliminates the value of a long-term permit. The five-year review should not treat “exceedance” of the expected take trajectory as non-compliance. Only the overall 30-year take limit should be used when determining compliance or exceedance of take authorization. Otherwise, it effectively transforms a 30-year permit into a series of five-year permits.

EWAC recommends that this section of 50 C.F.R. § 22.26(c)(7)(iii) be clarified to specify that the relevant take limit for evaluating compliance with authorized take levels during five-year reviews is the take authorization over the entire permit term, not the five-year take prediction. Any measures recommended during the five-year review where take numbers demonstrate a trajectory to exceed the overall take limit should be consistent with adaptive management provisions set forth in the relevant permit terms and conditions (and ECP if available). EWAC also recommends that Subsections (A)-(D) be revised to read consistently so that, in cases where the permittee is in compliance with its permit and has not exceeded the overall take limit, terms and conditions can be changed only with permittees’ consent. This approach would be consistent with the No Surprises assurances afforded ESA permittees for species more imperiled than either eagle species. It would be reasonable for the Eagle Permit Program to afford similar assurances as ESA permittees.

7. Credit for avoidance and minimization efforts taken at wind energy facilities should be factored into take estimates at the outset.

The wind energy industry has invested significant funding and efforts on researching ways to reduce eagle fatalities. Wind energy developers have deployed a number of methods to minimize take at their facilities. These methods include instituting carcass removal programs in cooperation

with participating landowners, biomonitor-informed curtailment in areas near turbines with higher eagle activity, and technology which can identify eagles and send messages to turbine control systems to automatically adjust turbine system operations. These efforts can significantly reduce the risk of take at projects but with significant cost to applicants. So far, the Service has been resistant to discounting CRM predictions at projects employing minimization methods. Thus, for applicants employing these methods to support golden eagle permit applications (or bald eagle permits requiring mitigation) – despite the cost and effort to implement minimization strategies – applicants are still “on the hook” for 100% of the mitigation based on the full CRM prediction unless and until mitigation is credited during the five-year review process.

The Service’s position on wind energy applications does not incentivize applicants to implement costly minimization measures. If the minimization measures are not expected to reduce take, then they should not be implemented and are a waste of resources. If they are expected to reduce take, then they ought to be credited by reducing the take estimate and corresponding mitigation commitment. Project budgets and financing models are developed at the outset of commercial operation and therefore must account for mitigation and minimization costs. While the Service has indicated a willingness to consider discounting take later in the permit term, the lack of consideration of these efforts at the outset creates a disincentive for applicants to consider costly minimization efforts. Incentivizing implementation of minimization measures also benefits the Service’s desire to conserve eagles.

8. The Service should continue to collaborate with the electric transmission and distribution industry sector on efforts to avoid and minimize risk to avian species, including eagles.

Millions of miles of existing electric transmission and distribution infrastructure are within the existing 2009 baseline. Even so, electric transmission and distribution operators have continuously and voluntarily retrofitted and reframed existing electric transmission and distribution line systems to reduce risk to eagles. Despite the millions of electric transmission and distribution lines installed throughout the country, the Service has noted that eagle mortality from electrocution and collision with power lines is not a leading cause of eagle mortality.

The electric transmission and distribution line industry has invested, and continues to invest, significant funding and efforts on researching ways to reduce eagle fatalities. The industry has shared the results of these efforts with the Service to increase the Service’s understanding the risks posed by power line systems. APLIC has worked tirelessly over several decades to develop effective minimization measures that balance the practical considerations involved with developing, constructing, and maintaining electric transmission and distribution systems. APLIC efforts have resulted in widespread deployment of its suggested practices through company Avian Protection Plans (“APPs”). Many APPs incorporate reporting requirements or rely on reporting requirements included in special purpose utility permits (a/k/a “SPUT permits”) to share data collected with the Service. Project proponents employing APPs and/or implementing other specific minimization measures to make power lines “bird-safe” should be acknowledged when evaluating risks posed by an electric transmission and distribution systems. The Service should collaborate with the power line industry to continue its efforts to study and reduce risks to birds, including eagles.

9. More mitigation options must be made available for permittees.

Since the inception of the Eagle Permit Program, retrofitting or reframing power poles are the sole methods of compensatory mitigation accepted by the Service for Eagle Permits. While other methods are under consideration, in the past 12 years of the Eagle Permit Program, no other option has been accepted for Eagle Permits. This position forces power line owner/operators to be the sole mitigation source for other industries and creates tension with the power line owner/operator's own retrofit programs under an APP, which is designed to minimize their own avian impacts and risk exposure. Very few utilities have been willing to be liable for another entity's Eagle Permit obligations, and those that are willing encounter significant challenges in accepting permittee funds or increasing or otherwise altering their existing lien and pole maintenance schedules. Without explicit acknowledgement that impacts to eagles from power lines are already accounted for in the baseline data, and with no relief from BGEPA liability for the operations and maintenance of the power line infrastructure, most utilities will continue to be unwilling to act as a mitigation source.

Currently, when evaluating an applicant's mitigation proposal for retrofits and reframes, the Service is, in some regions, insisting on applying the 2013 Dwyer et al. paper.<sup>26</sup> This paper examines high-risk power poles and impacts to *red-tailed hawks* and *crows*, in a predominantly urban environment, to determine which poles are high-risk for the purposes of modifying or replacing the poles in order to reduce electrocution risk to these birds. The authors specifically state in the paper that the methodology is *not appropriate for use in determining high-risk poles for eagles*.<sup>27</sup> The impact of the Service's insistence on relying upon the Dwyer paper for the purpose of identifying risk to eagles is that it greatly reduces the number of poles available for compensatory mitigation (and for power line providers own risk management practices), ignores input from utility subject matter experts with significantly more experience at identifying high risk poles than Service staff, and has created an impasse on several permits in process. It is questionable why there is continued reliance on a study that explicitly states that it does not apply to eagles. This would not seem to qualify as the best available science.

This issue further compounds the legal, financial, and technical challenges associated with retrofitting and reframing power poles as the sole method of mitigation. EWAC encourages the Service to seek solutions to compensatory mitigation that rely on the best available science and data, such as that collected by power line companies over many decades, and to allow other mitigation approaches to be adopted, utilized, and equally credited as compensatory mitigation such as road side carcass removal/relocation, nest/habitat preservation, and lead abatement programs.<sup>28</sup> Additional options would increase the conservation value of the Eagle Permit Program by addressing more sources of eagle mortality. These options should be made available concurrently with the amendments to the Eagle Permit Program.

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<sup>26</sup> J. F. Dwyer et al., *Predictive Model of Avian Electrocution Risk on Overhead Power Lines*, 00 Conservation Biology No. 0 (2013). Available at, [https://www.researchgate.net/publication/256608145\\_Predictive\\_Model\\_of\\_Avian\\_Electrocution\\_Risk\\_on\\_Overhead\\_Power\\_Lines](https://www.researchgate.net/publication/256608145_Predictive_Model_of_Avian_Electrocution_Risk_on_Overhead_Power_Lines).

<sup>27</sup> *Id.* at 9.

<sup>28</sup> See e.g. Steve Slater, Ph.D., *Quantifying eagle Vehicle Strike Risk in the Western U.S.*, Hawkwatch, <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=170426&inline>.

Finally, the Service insists that any Resource Equivalency Analysis (“REA”) or other qualification/quantification of “eagle replacement” be done by in-house Service economists. This is unnecessary in that there are several highly qualified consulting firms who can run the REA or other similar analysis. Reliance on outside experts is done frequently with ESA listed species compensatory mitigation efforts and in natural resource damage cases where replacement of fish, birds, and other wildlife are qualified/quantified using best available science. The REAs are then reviewed by the Service and other resource agencies and typically accepted. The Service should rely on qualified consultants to establish additional eagle compensatory mitigation options. This will free up the Service’s limited resources to focus on other aspects of the Eagle Permit Program.

#### **IV. The Service regions should not be issuing guidance (and requiring its implementation) without notice and comment.**

The ANPR notes that the Service is working on several guidance documents, including guidance related to:

Fatality monitoring at wind-energy facilities, standards for using power-pole retrofits as offsetting mitigation, revised protocols for minimizing disturbance of nesting bald eagles, golden eagle nest-buffer guidance, and reduced or more streamlined permitting requirements in areas where the risk of take is low.<sup>29</sup>

In the meantime, at least two regions have developed guidance directed at Eagle Permit applicants in the wind energy industry. Neither region has published their guidance documents for notice and comment. Case law is very clear that guidance that has a regulatory effect on the regulated community must be published for notice and comment in accordance with the APA.<sup>30</sup> Guidance also cannot exceed an agency’s authority. In both regions, applicants encounter meaningful consequences for not incorporating the guidance recommendations. These consequences often include stalled permit processing. To avoid being moved to the “bottom of the pile” and move forward with their project, an applicant is put in the position of having to choose between: (1) committing to terms that are beyond the Service’s authority under BGEPA, have not been properly vetted, and come at significant cost; and (2) risk potential exposure to enforcement under BGEPA for eagle take that may occur due to delays in processing or abandonment of their application. It is inappropriate for an agency to put the regulated community in this position based on guidance documents that have not been properly issued.

One example is the Service Mountain-Prairie Region’s issuance of several guidance documents for applicants to incorporate into their ECP development process (together, the “Region 6 Guidance”). The breadth of the Region 6 Guidance is extensive and several of the recommendations have significant impacts on wind energy facilities. While the latest revisions to the Region 6 Guidance incorporate language that makes sure to phrase the guidance content as “recommendations,” in practice Service permitting staff have been treating the recommendations as requirements.

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<sup>29</sup> 86 Fed. Reg. at 51,905.

<sup>30</sup> See e.g., *CropLife America v. EPA*, 329 F.3d 876 (D.C. Cir. 2003); *General Electric Co. v. EPA*, 290 F.3d 377 (D.C. Cir. 2002); *Appalachian Power Co. v. EPA.*, 208 F.3d 1015 (D.C. Cir. 2000); *Iowa League of Cities v. EPA.*, 711 F.3d 844, 863-65 (8th Cir. 2013); *Texas v. United States*, 809 F.3d 134 (5th Cir. 2015), *aff’d*, 136 S. Ct. 2271 (2016).

In several respects, the Region 6 Guidance goes beyond the 2016 Eagle Rule and the Service's Eagle Conservation Plan Guidance. For example, the March 31, 2021 "U.S. Fish and Wildlife Service, Region 6, Recommendations for Avoidance and Minimization of Impacts to Golden Eagles at Wind Energy Facilities" recommends *seasonal curtailment between January 15 and May 1* for turbines located within 0.5-1.0 mile of an unoccupied nest and 0.5-2.0 miles of an occupied nest.<sup>31</sup> This is a form of blanket curtailment (i.e. turbines stop producing power for a set period of time regardless of eagle presence), which is more extensive than informed curtailment from biomonitoring or use of detection technology (in which turbines are stopped when an eagle is detected within certain distances of one or more turbines). The 2016 Eagle Rule places no such restrictions on potential applicants. In fact, the CRM does not factor nest proximity into its take predictions, and the regulations provide that the required Service analysis is whether the applicant has proposed "minimization measures to reduce the take to the maximum degree practicable *relative to the magnitude of the impacts to eagles.*"<sup>32</sup> Pursuant to the 2016 Eagle Rule then, a blanket recommendation of minimization on the significant magnitude and scale set forth in the Region 6 Guidance is wholly inappropriate for projects whose magnitude of impacts to eagles (as dictated by the Service's CRM) is predicted to be low. To require otherwise exceeds the Service's authority. Furthermore, the Region 6 Guidance has not gone out for public notice and comment, yet Service personnel in this region have been insisting that the Region 6 Guidance be incorporated into ECPs. Applicants that push back on incorporation of the Region 6 Guidance are often subjected to stalled permit processing.

Similarly, the March 31, 2021 "U.S. Fish and Wildlife Service (USFWS), Region 6 Wildlife Buffer Recommendations for Wind Energy Projects" recommends setbacks from various natural resources, including wetlands, croplands, grasslands, and other unprotected species habitat, including non-eagle related resources.<sup>33</sup> These setbacks are beyond the requirements of the 2016 Eagle Rule and add additional layers of constraint upon projects already subject to federal, state, local, and landowner constraints. At least one company has completed an analysis applying these setbacks to an already constructed facility; it resulted in over 80% of the turbines being eliminated if applied retroactively. Again, this guidance has not been published for notice and comment, yet these recommendations quickly become requirements when seeking Service approval of an ECP.

The Midwest Region has developed monitoring guidance for applicants that provides recommended language for the fatality monitoring program ("Region 3 Guidance").<sup>34</sup> The Region 3 Guidance notes that those that accept the recommended language will enjoy streamlined review. The recommendations require use of EoA and for the permittee to achieve an average 0.35 probability of detection (*g*-value) using EoA for each five-year period of an Eagle Permit. Permittees will need to increase their fatality monitoring program by 200-300% to meet this

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<sup>31</sup> USFWS Recommendations for Avoidance and Minimization of Impacts to Golden Eagles at Wind Energy Facilities (2021) available at [https://www.fws.gov/mountain-prairie/migbirds/library/Revised%20GOEA\\_Buffer%20Recommendations%20for%20Wind%20Facilities\\_ver3.pdf](https://www.fws.gov/mountain-prairie/migbirds/library/Revised%20GOEA_Buffer%20Recommendations%20for%20Wind%20Facilities_ver3.pdf).

<sup>32</sup> 50 C.F.R. § 22.26(e)(5)(emphasis added).

<sup>33</sup> USFWS Wildlife Buffer Recommendations for Wind Energy Projects (2021) available at [https://www.fws.gov/mountain-prairie/migbirds/library/USFWS%20R6%20Buffer%20Recommendations%20for%20wind%20energy%20projects\\_ver3.pdf](https://www.fws.gov/mountain-prairie/migbirds/library/USFWS%20R6%20Buffer%20Recommendations%20for%20wind%20energy%20projects_ver3.pdf).

<sup>34</sup> USFWS Region 3 Recommended Eagle Fatality Monitoring, September 2021 version.

average *g*-value requirement. The economic impacts of this recommendation are staggering and, in many cases, unattainable, yet applicants are being told their projects will not enjoy streamlined review unless they adhere to the Region 3 Guidance.

The Region 3 Guidance creates a host of problems. Eagle Permit applications in the Midwest Region are almost entirely for bald eagle take risk, a species whose population, as previously noted, has quadrupled while wind energy development has tripled. As noted above in Section III (4), the Service's focus on EoA is misplaced for eagles as standard monitoring approaches are sufficient to measure eagle fatalities at a project. A blanket insistence of 0.35 *g* ignores any consideration of the magnitude of impacts specific to a project. Projects with minimal impacts to eagles are subjected to disproportionate monitoring impacts in order to have their permit applications processed. Projects with low take predictions will spend millions of dollars on monitoring to demonstrate compliance with permit terms that may be unattainable and may not materially contribute to demonstrating permit compliance. This result is the opposite of how the Eagle Permit Program should be administered. The Eagle Permit Program should be easier for projects that are expected to have minimal impacts to eagles, yet as currently administered, the opposite is true. The Region 3 Guidance exemplifies this and is yet another example of guidance that has not been developed through the appropriate notice and comment process.

EWAC cautions the Service in its development of any further guidance. Any guidance developed should be published for notice and comment and the regulated community's comments should be given due consideration prior to finalizing any final guidance. Any Service guidance should be careful to not exceed the Service's statutory and regulatory authority and should not be wielded as a *de facto* rule in contravention of the APA.<sup>35</sup> Finally, any guidance should seek to improve the Eagle Permit process for projects predicted to have minimal impacts to eagles.

## **V. Conclusion**

EWAC appreciates the opportunity to provide the Service with its recommendations for improving the Eagle Permit Program. An effective Eagle Permit Program will contribute to the Biden Administration achieving its climate goals. Meaningful changes should be made to improve the Eagle Permit process to allow the Eagle Permit Program to achieve its full conservation potential and provide the regulated community – and the renewable energy and broader electric power sector – with an efficient, predictable, and reasonably-priced compliance mechanism. EWAC looks forward to continued opportunities to discuss ways to make the Eagle Permit Program work for all stakeholders.

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<sup>35</sup> See e.g., *CropLife America v. EPA*, 329 F.3d 876 (D.C. Cir. 2003); *General Electric Co. v. EPA*, 290 F.3d 377 (D.C. Cir. 2002); *Appalachian Power Co. v. EPA*, 208 F.3d 1015 (D.C. Cir. 2000); *Iowa League of Cities v. EPA*, 711 F.3d 844, 863-65 (8th Cir. 2013); *Texas v. United States*, 809 F.3d 134 (5th Cir. 2015), *aff'd*, 136 S. Ct. 2271 (2016).



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**Appendix A**  
**Costs Associated with Applying for and Implementing an Eagle Permit**

The following assumes a 30-year permit for a wind energy facility, based on real numbers generated by EWAC members for both eagle species for 100-200 MW projects:

- Pre-Construction Surveys consistent with 50 CFR 22.26
  - \$100-\$200K per year for two years (\$200K-\$400K total).
- Preparation of documentation to support permit application (developing Eagle Conservation Plan, developing and/or support Service development of NEPA documentation; negotiation of terms with USFWS)
  - \$100K-\$400K
- Minimization (bio-monitoring, Identiflight, etc.)
  - \$2.4M-\$9.15M (not including power losses due to curtailment)
- Fatality Monitoring
  - Third-party consulting costs
    - \$100K-\$250K per year
      - Depending on monitoring intervals and g-value requirements, the 30-year total ranges \$800K-\$4.5M.
      - This does not include the increased costs for an average g-value requirement as set forth in the Region 3 Guidance.
  - Crop damage costs (varies depending on crop value, size of project, etc.)
    - \$424,000 - \$680,000
- Compensatory Mitigation\*
  - Power pole retrofits – \$1M - \$22.5M
- Five-Year Reviews
  - Fee - \$36K upon application submittal
  - Fee - \$8k every five years (30-year cost - \$40k)
  - Meeting/Reporting Costs in preparation for review - \$25k every five years (30-year cost - \$125k)

\*A member provided the following breakdown to help illustrate how the predicted take rate corresponds to mitigation costs (assuming a 30-year reframe).

Predicated take/year	5 year costs		30 year costs	
	Low	High	Low	High
1	\$429,000	\$585,000	\$2,574,000	\$3,510,000
2	\$858,000	\$1,170,000	\$5,148,000	\$7,020,000
3	\$1,287,000	\$1,755,000	\$7,722,000	\$10,530,000
4	\$1,710,500	\$2,332,500	\$10,263,000	\$13,995,000