DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Parts 13 and 22

[Docket No. FWS–R9–MB–2011–0094; FF09M20300–167–FXMB123109EAGLE]

RIN 1018–AY30

Eagle Permits; Revisions to Regulations for Eagle Incidental Take and Take of Eagle Nests

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service or USFWS), are revising the regulations for eagle nonpurposeful take permits and eagle nest take permits. Revisions include changes to permit issuance criteria and duration, definitions, compensatory mitigation standards, criteria for eagle nest removal permits, permit application requirements, and fees. We intend the revisions to add clarity to the eagle permit regulations, improve their implementation, and increase compliance, while maintaining strong protection for eagles.

DATES: Effective January 17, 2017.

ADDRESSES: *Document Availability:* The Record of Decision, Final PEIS, and supplementary information used in the development of this rule, including the public comments received and the programmatic environmental impact statement, may be viewed online at *http://www.fws.gov/birds/management/managed-species/eagle-management.php* and also at *http://www.regulations.gov* at Docket No. FWS–R9–MB–2011–0094.

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SUPPLEMENTARY INFORMATION:

Executive Summary

The U.S. Fish and Wildlife Service is finalizing revisions to permit regulations for nonpurposeful (incidental) take of eagles and take of eagle nests in part 22 of title 50 of the Code of Federal Regulations. The revisions are intended to create a permitting framework that we can implement more efficiently and thus encourage greater public compliance while ensuring protection of bald and golden eagles. Our goal is to enhance protection of eagles throughout their ranges through implementation of mitigation measures that avoid and minimize, and compensate for, adverse impacts from otherwise lawful activities.

The Service is modifying the definition of the Bald and Golden Eagle Protection Act's ''preservation standard,'' which requires that permitted take be compatible with the preservation of eagles. We are also removing the distinction between standard and programmatic permits, codifying standardized mitigation requirements, and extending the maximum permit duration for eagle incidental take permits (50 CFR 22.26). The regulations also include a number of additional revisions to the eagle nest take regulations at 50 CFR 22.27, as well as revisions to the permit fee schedule at 50 CFR 13.11; new and revised definitions in 50 CFR 22.3; revisions to 50 CFR 22.25 (permits for golden eagle nest take for resource development and recovery operations) for consistency with the § 22.27 nest take permits; and two provisions that apply to all eagle permit types (50 CFR 22.4 and 22.11).

Background

The Bald and Golden Eagle Protection Act (Eagle Act or BGEPA) (16 U.S.C. 668–668d) prohibits take of bald eagles and golden eagles except pursuant to federal regulations. The Eagle Act authorizes the Secretary of the Interior to issue regulations to permit the ''taking'' of eagles for various purposes, including the protection of ''other interests in any particular locality'' (16 U.S.C. 668a), provided the taking is compatible with the preservation of eagles. In 2009, the Service promulgated regulations at 50 CFR part 22 that established two new permit types for take of eagles and eagle nests (74 FR 46836; Sept. 11, 2009) (Eagle Permit Rule). One permit authorizes, under limited circumstances, the take (removal, relocation, or destruction) of eagle nests (50 CFR 22.27). The other permit type authorizes nonpurposeful take (disturbance, injury, or killing) of eagles (50 CFR 22.26) where the take is incidental to an otherwise lawful activity. In these revised regulations, we refer to nonpurposeful take as incidental take, which has the same meaning as conveyed in the 2009 regulations: Take that is associated with but not the purpose of an activity.

The Eagle Act requires the Service to determine that any take of eagles the Service authorizes is ''compatible with the preservation of the bald eagle or the golden eagle'' (16 U.S.C. 668a). We refer to this clause as the Eagle Act preservation standard. The preservation standard underpins the Service's management objectives for eagles. In the preamble to the final 2009 regulations for eagle nonpurposeful take permits, and in the final environmental assessment (FEA) of the regulations, the Service defined the preservation standard to mean ''consistent with the goal of stable or increasing breeding populations'' (74 FR 46836, see p. 46837).

On April 13, 2012, the Service initiated two additional rulemakings: (1) A proposed rule to extend the maximum permit tenure for programmatic eagle nonpurposeful take permit regulations from 5 to 30 years, among other changes (''Duration Rule'') (77 FR 22267); and (2) an advance notice of proposed rulemaking (ANPR) soliciting input on all aspects of those eagle nonpurposeful take regulations (77 FR 22278). The Duration Rule was finalized on December 9, 2013 (78 FR 73704). However, it was the subject of a legal challenge, and on August 11, 2015, the U.S. District Court for the Northern District of California vacated the provisions that extended the maximum programmatic permit tenure to 30 years (*Shearwater* v. *Ashe,* No. CV02830–LHK (N.D. Cal., Aug. 11, 2015)). The court held that the Service should have prepared an environmental assessment (EA) or environmental impact statement (EIS) to accompany the rulemaking rather than apply a categorical exclusion under the National Environmental Policy Act (NEPA; 42 U.S.C. 4321–4347). The effect of the ruling was to return the maximum programmatic permit tenure to 5 years.

The 2012 ANPR highlighted three main issues for public comment: Our overall eagle population management objectives; compensatory mitigation required under permits; and the nonpurposeful take programmatic permit issuance criteria. As a next step, the Service issued a notice of intent to prepare an EA or EIS pursuant to NEPA (79 FR 35564; June 23, 2014). The Service then held five public scoping meetings between July 22 and August 7, 2014. We received a total of 536 comments during that public comment period. Upon removal of duplicates, there were a total of 517 unique comments. We reviewed the comments and used them to develop proposed regulations and a draft programmatic environmental impact statement (DPEIS), which we released on May 6, 2016, for a 60-day public comment period (81 FR 27934). The draft PEIS and proposed regulations are available on the Internet at: *http://eagleruleprocess.org/* and at *http://www.regulations.gov* at Docket No. FWS–R9–MB–2011–0094. We received 780 comments on the proposed rule and DPEIS from federal agencies, states,

tribes, nongovernmental organizations, industry associations, individual companies, and members of the public. These comments were the basis for several changes, discussed below, that we made to the proposed action in this rule.

In accordance with NEPA requirements (40 CFR 1506.6(b)), we announce the availability of the Record of Decision (ROD) for the Service's final PEIS for the eagle rule revisions and management objectives. The ROD is the final step in the NEPA process for the eagle rule revision process, which includes revisions to the regulations governing permits for incidental take of eagles and take of eagle nests. The ROD describes the Service's decision; identifies the other alternatives considered, including the environmentally preferable alternative; explains the Service's plans for mitigation; and states what factors, including considerations of national policy, we considered in making the decision. The ROD and final PEIS are available at *http://www.fws.gov/birds/management/managed-species/eagle-management.php* and also at *http://www.regulations.gov* at Docket No. FWS–R9–MB–2011–0094.

Bald eagle populations have continued to increase throughout the United States, which effectively increases the potential need for permits for activities that may disturb, injure, or kill bald eagles. There has also been significant expansion within many sectors of the U.S. energy industry, particularly wind energy operations, and much more interest in permitting new long-term operations than was anticipated when the 2009 regulations were promulgated. At the same time, golden eagle populations are potentially declining, heightening the challenge of permitting incidental take of this species for otherwise lawful activities. The 2009 permit regulations have not provided an optimal framework for authorizing incidental take under these circumstances, particularly for incidental take resulting from long-term, ongoing activities. Difficulties in establishing new permit regulations are to be expected and the Service contemplated that changes to the permit regulations would be necessary based on experience gained through implementing the new permit framework. One of these challenges has been a general perception that the 2009 permitting framework did not provide enough flexibility to issue eagle take permits in a timely manner. Indeed, only one programmatic permit has been issued to date. When projects go forward without permit authorization, the opportunity to obtain benefits to eagles in the form of required conservation measures is lost and project operators put themselves at risk of violating the law.

Under the management approach established with the 2009 eagle permit regulations and final EA (FEA), permitted take of bald eagles has been capped at 5 percent of estimated annual productivity (*i.e.,* successful reproduction) of the population. Because the Service lacked data in 2009 to show that golden eagle populations could sustain any additional unmitigated mortality, the Service set take limits for that species at zero. This decision has meant that any new authorized take of golden eagles must be at least equally offset by compensatory mitigation (specific conservation actions to replace or offset project-induced mortality or disturbance by reducing take elsewhere).

In the FEA for the 2009 regulations and in the preamble to those regulations, the Service adopted a policy of not issuing take permits for golden eagles east of the 100th meridian. At the time, the Service determined there were not sufficient data to ensure that golden eagle populations were stable or increasing such that permitting take would not result in a decline in breeding pairs in this region. However, after further analysis, the Service has determined that some take can be permitted with implementation of compensatory mitigation. Rather than providing an increased level of protection for golden eagles, this policy has meant that activities that take golden eagles in the east continue to proliferate without implementation of conservation measures and mitigation to address impacts to golden eagles that would be required as the result of the permitting process.

Since 2009, Service and U.S. Geological Survey (USGS) scientists have undertaken considerable research and monitoring to improve the Service's ability to track compliance with eagle management objectives and reduce uncertainty. Of particular significance, the Service has updated population estimates for both species of eagle and quantified uncertainty in those estimates. For the bald eagle, the Service now estimates substantially higher populations than were estimated in 2009, and allowable take limits will likely increase considerably across most of the country as a result (see further discussion below under *Status of Eagle Populations*). For golden eagles, recent research indicates that the population in the coterminous western United States might be declining towards a lower equilibrium. Additionally, the Service now has a much better understanding of the seasonal, annual, and age-related movement patterns of golden eagles. These data are incorporated into the updated management framework.

Through implementing the 2009 permit regulations, the Service has identified several provisions that could be improved for the benefit of both eagles and people, including the regulated community. One issue that has hampered efficient permit administration (of both eagle nonpurposeful take permits and eagle nest take permits) is the difficulty inherent in applying the standard that take must be reduced to the point where it is unavoidable, which the current regulations require for programmatic permits. Additionally, a lack of specificity in the regulations as to when compensatory mitigation is required can lead to inconsistencies in what is required of permittees.

The 5-year maximum duration for programmatic permits appears to have been a primary factor discouraging many project proponents from seeking eagle take permits. Many activities that incidentally take eagles due to ongoing operations have lifetimes that far exceed 5 years. We need to issue permits that align better, both in duration and the scale of conservation measures, with the longer-term duration of industrial activities, such as electricity distribution and energy production. Extending the maximum permit duration is consistent with other Federal permitting for development and infrastructure projects.

Encouraging more proponents of activities that incidentally take eagles to apply for permits is a critically important means of reducing incidental take. The intent of these regulations is not to encourage construction and operation of projects that take eagles (an eagle incidental take permit only authorizes take of eagles; it is not a prerequisite or an authorization to construct and operate projects that will result in eagles being taken). Instead, we are strongly encouraging such projects to seek authorization for eagle take and thereby implement conservation measures that reduce incidental take and benefit eagles. Unpermitted activities have taken and will continue to take eagles with or without this permit program. In fact, the Service's recent analysis of causes of death of golden eagles shows that, 56 years after enactment of the Eagle Act, unpermitted human-caused mortality is still the leading cause of death of golden eagles in the United States, and risks causing

population declines for this species. Our goal is to reduce the number of unauthorized activities through enforcement where appropriate and by implementing an efficient regulatory framework that encourages proponents of activities that incidentally take eagles to seek and obtain legal authorization.

The Service has successfully pursued enforcement actions against project proponents that incidentally take eagles and will continue to do so, but enforcement alone is an inefficient means to manage and conserve eagles nationwide and is constrained by our limited law enforcement resources. Therefore, our primary means of conserving and protecting eagles is to ensure that our incidental take permit regulations encourage more proponents to seek and obtain permits for activities that otherwise would continue to take eagles without implementing the conservation measures that are critical to eagle conservation nationally, regionally, and locally.

Status of Eagle Populations

The Service is updating its management objectives for eagles established by the 2009 eagle permit regulations and FEA. Management objectives direct strategic management and monitoring actions and ultimately determine what level of permitted eagle take we can allow. The Service recently completed a status report on bald and golden eagles: ''Bald and Golden Eagles: Status, trends, and estimation of sustainable take rates in the United States'' (''Status Report'') (USFWS, 2016). The Status Report, which is available at *http://eagleruleprocess.org,* estimates population sizes, productivity, and survival rates for both species; analyzes the effects of unauthorized take of golden eagles; provides recommended take limits for both species and metrics for converting take in the form of disturbance to debits from the take limits; analyzes the cumulative effects of permitting take of up to 5% of local area populations (the population in the vicinity of a particular project or activity); and recommends a schedule of population surveys to regularly update population size estimates for both species. The Status Report is essentially a compilation of the most current research on the population status and trends of bald and golden eagles and serves as the biological basis for the revised regulatory management framework in these regulation revisions and the preferred alternative in the programmatic EIS (PEIS). The following discussion pertaining to the status of bald and golden eagle populations summarizes some of the information provided and explained in more detail in the Status Report, available at *http://eagleruleprocess.org.*

The Service has estimated the population size for the bald eagle in the coterminous United States using a population model in conjunction with estimates of the number of occupied nesting territories in 2009. That population size estimate is 72,434, and, when combined with a previous estimate of population size for Alaska (70,544), is 143,000. We derive our conservative estimate for the population size by using the 20th quantile of the population size estimate distribution (the 20th quantile is the point on the probability distribution where there is only a 20% chance of the estimate being lower than the true population size). The 20th quantile represented 126,000 bald eagles for the United States in 2009. This number represents an increase from our population size estimate for the coterminous United States in 2007 (the year data were gathered to support delisting under the Endangered Species Act of 1973, as amended (ESA; 16 U.S.C. 1531 *et seq.*)), which was 69,000. We attribute the difference to improved monitoring and estimation efforts, as well as increases in bald eagle numbers. Both the population model and Breeding Bird Survey (BBS) estimates indicate bald eagle populations are continuing to increase throughout the coterminous United States.

We estimated future bald eagle populations using a conservative assumption that the number of suitable bald eagle nesting territories will not increase above the 2009 estimate. Given limitations of the data on Alaskan eagles and evidence from the BBS that bald eagle populations are growing more slowly there, we did not model projections for Alaska and assumed that Alaska's bald eagle population will remain stable (though demographic rates suggested continued growth is possible). With these constraints, our model forecasts that the number of bald eagles in the coterminous United States outside the Southwest will continue to increase until populations reach an equilibrium at about 228,000 (20th quantile = 197,000) individuals. The model predicts that bald eagles in the Southwest will also continue to increase from the 2009 population estimate of 650 until reaching an equilibrium at about 1,800 (20th quantile = 1,400) individuals. Again, these numbers are based on assumptions that underlying demographic rates and other environmental factors remain unchanged, and the predictions do not take into account forecasted changes in climate nor how such changes may affect bald eagle population vital rates and population size. These projections also assume food and other factors will not become limiting.

We estimated the total population size for the golden eagle in the coterminous United States and Alaska was 39,000 (20th quantile = 34,000) in 2009, and 41,500 (20th quantile = 35,000) in 2014, updated from 40,000 in the draft PEIS based on comments we received from the Alaska Department of Fish and Game. However, although the golden eagle population trend estimate based on current surveys is stable, an estimate from a population model similar to that used for the bald eagle suggests the population in the western United States might be declining toward a lower equilibrium size of about 26,000 individuals.

Using unbiased cause-of-mortality data for a sample of 386 satellite-tagged golden eagles in the period 1997–2013, the Service estimated contemporary age-specific survival rates with and without current levels of anthropogenic mortality. Anthropogenic factors were responsible for about 56% of satellite-tagged golden eagle mortality, with the highest rates of anthropogenic mortality among adults (63%). We estimated the maximum rate of population growth for the golden eagle in the coterminous United States in the absence of existing anthropogenic mortality was 10.9% (20th quantile = 9.7%). Sustainable take (the number of eagles that can be removed from the population while still achieving a stable population compared to the 2009 baseline) of golden eagles under those conditions would be 2,000 individuals (20th quantile = 1,600). The available information suggests ongoing levels of human-caused mortality likely exceed this value, perhaps considerably. This information supports the finding from the population model that golden eagle populations may be declining to a new, lower level.

For much more detailed information about the current population status and trends, see the Status Report available at: *http://eagleruleprocess.org.*

Description of the Rulemaking

Preservation Standard

The Eagle Act requires that any authorized take of eagles be ''compatible with the preservation'' of bald eagles and golden eagles. The Service defined this preservation standard in the preamble to the 2009 regulations to mean ''consistent with the goal of stable or increasing breeding populations.'' We are incorporating a modified definition of that standard into the regulations. We

now define the preservation standard to mean ''consistent with the goals of maintaining stable or increasing breeding populations in all eagle management units and the persistence of local populations throughout the geographic range of each species.'' The timeframe the Service used for modeling and assessing eagle population demographics is 100 years (at least eight generations) for both eagle species relative to the 2009 baseline. ''Eagle management unit'' is defined as ''a geographically bounded region within which permitted take is regulated to meet the management goal of maintaining stable or increasing breeding populations of bald or golden eagles.''

The eagle management objective embodied in the revised definition of the preservation standard is consistent with Presidential, Department of the Interior, and Fish and Wildlife Service mitigation policies that aim to achieve a net benefit, or at a minimum, no net loss, of natural resources. (*See* the Service's mitigation policy (501 FW 2); Secretary's Order 3330, entitled ''Improving Mitigation Policies and Practices of the Department of the Interior'' (October 31, 2013); the Departmental Manual Chapter on Implementing Mitigation at the Landscape-scale (600 DM 6 (October 23, 2015)); and the Presidential Memorandum on Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investment (November 3, 2015)).

During the scoping period for the PEIS, the Service sought and received public comment on how the preservation standard should be defined and applied. We considered adoption of a purely qualitative preservation standard such as ''to not meaningfully impair the bald or golden eagle's continued existence.'' However, a qualitative approach alone contains no standards for assessment, which could lead to inconsistent implementation between Service regions. Inconsistent implementation across Regions is a bigger concern with eagles than for many ESA-listed species because the range of both bald and golden eagles extends throughout the continental United States. Additional drawbacks to adopting a qualitative approach are that it is less compatible with formal adaptive management and does not provide a mechanism to assess cumulative impacts. Also, considerable quantitative information is available on eagle populations unlike many ESA-listed species, and to ignore these data or to independently reassess them for each permit is inconsistent with the Service's commitment to use the best available information and practice the best science. For these reasons, the Service has elected not to adopt a qualitative preservation standard.

We elected to retain the quantitative approach because it is explicit, allows less room for subjective interpretation, and can be consistently implemented throughout the country and across the types of activities that require permits. Our approach, including the underlying population model, is consistent with other wildlife management programs, including the North American Waterfowl Management Plan and management of marine mammals under the Marine Mammal Protection Act (16 U.S.C. 1361 *et seq.*).

The revised preservation standard—''consistent with the goals of maintaining stable or increasing breeding populations in all eagle management units and the persistence of local populations throughout the geographic range of both species''—seeks to ensure the persistence of bald and golden eagle populations over the long term with sufficient distribution to be resilient and adaptable to environmental conditions, stressors, and likely future altered environments, and to better align with State and tribal interests in local eagle population management. To meet this objective in a scientifically rigorous manner, the Service manages eagles at two scales: (1) Eagle management units (EMUs), which are regional populations of eagles over which the Service strives to meet the objective of population stability or growth, relative to population size in the baseline year of 2009, over 100 years; and (2) local area populations, which are finer-scale areas defined by eagle dispersal criteria that are specific to each permitted action and over which the Service seeks to ensure take does not cause the extirpation of either eagle species. The Service used modern scientific methods to estimate the take rate (the proportion of the population that can be removed annually) that can be authorized for each species of eagle in each EMU while meeting our management objectives. These estimates are in the form of probability distributions that account for scientific uncertainty in both the modeling process and in the biological data used in the models. For the liberal PEIS alternatives, the Service used the median of model estimates for important parameters (*e.g.,* population size, take rate) to calculate take limits (the number of eagles that can be removed annually at the EMU- and, separately, the LAP-scale and still meet the management objective); this approach shares the risk posed by uncertainty equally between being under-protective of eagles and being unnecessarily over-restrictive on activities that might take eagles. For the conservative PEIS alternatives, the Service used values that allocated risk in an 80:20 ratio in favor of being over-protective of eagles. By defining the eagle preservation standard in this way, and analyzing the effects of take within those take limits in the PEIS, the analytical burden for each permit decision is greatly reduced, allowing the Service to make informed permitting decisions at an expedited rate.

The regulatory revisions in this final rule are based on the amended definition of the preservation standard and the adoption of a relatively conservative approach to estimating population values and sustainable take rates based on the best available data and the Service's level of risk tolerance in the face of uncertainty. This relatively conservative approach is described below, and also in much more detail, along with alternative approaches and the scientific and technical information that underpins their analyses, in the Status Report and the PEIS.

We estimate there are about 143,000 bald eagles in the United States (including Alaska), and that populations continue to increase. Given their continued population growth above the 2009 baseline, and considering the updated demographic data compiled by the Service and presented in the Status Report, we have determined there is considerable capacity for sustainable take of bald eagles. Under the management approach we are adopting, the sustainable annual take limit (without compensatory mitigation) would be 3,742 bald eagles in the coterminous United States. Initially, the Service proposed to set unmitigated take limits of only 500 bald eagles annually in Alaska because our population data there are less rigorous than elsewhere in the United States. However, in response to compelling comments from the Alaska Department of Fish and Game (see Response to Public Comments, below, for more details), we have revised the sustainable take rate for Alaska to 3,776, based on the sustainable take rate of 6% under the preferred alternative in the PEIS. The Service does not expect authorized take under the revised sustainable take limits to approach the new take limit in Alaska or nationwide. In fact, there is nothing in the revised regulations that will increase take, though we hope more ongoing unpermitted take will be captured under permits in the future.

We estimate golden eagles currently number about 40,000 individuals in the United States (including Alaska), and populations have been relatively stable around that size since the mid-1960s. We estimate the carrying capacity of golden eagles nationwide to be 73,000. We also have data indicating that population size is limited by high levels of anthropogenic mortality (*i.e.,* populations could be larger were it not for ongoing high levels of unpermitted take), and that adding additional mortality will likely cause populations to decline to a lower level. As a consequence, there is no opportunity for authorizing additional unmitigated take of this species without changing the population objective to a level lower than the 2009 baseline. Under our proposed management framework, we would operate under the conservative assumption that there is no sustainable take, and take limits would be zero, without compensatory mitigation to offset the take. However, even using the median values, rather than the 20th quantile used in our preferred, conservative approach, take of golden eagles nationwide would still be set at zero, requiring that all authorized take be offset by compensatory mitigation.

We are realigning EMUs to better reflect regional populations and migration patterns of both species. The Service and its partner agencies manage for migratory birds based on specific migratory route paths within North America (Atlantic, Mississippi, Central, and Pacific). Based on those route paths, State and Federal agencies developed the four administrative flyways that are used to administer migratory bird resources. Both bald and golden eagles move over great distances seasonally and across years. There is a well-described annual seasonal migration of both species of eagles from northern regions southward in winter. An annual northward migration of bald eagles from southern regions in spring is well-documented, and a similar northward migration of golden eagles that winter in southern regions has been recently discovered. The adoption of the administrative flyways as EMUs better aligns with seasonal movement patterns of both species and better addresses geographic patterns of risk given those seasonal movement patterns.

We are aware of preliminary data on golden eagles tracked with satellite telemetry that indicate a flyway configuration for EMUs may not capture movement patterns of resident golden eagles as well as finer-scale landscape mapping systems. The results of that study were intended to be completed and included in the Status Report, but the work was not completed in time. In its place the Service conducted an analysis of banding data, and those results are reported in the Status Report. Neither analysis is ideal because the distribution of deployed bands and satellite tags has not been random. While the banding data have the advantage of much larger sample sizes, the satellite-tag data have the advantage of much more precise tracking of a smaller number of individuals. The Service will consider the information from the satellite telemetry study in future re-assessments of eagle status and management objectives.

In the approach we are now adopting, we will use the flyways as the EMUs for both species—with some modifications. The banding data recovery records indicate that banded eagles of both species were recovered more frequently in the same flyway EMU than in the same 2009 EMU. Given the relatively small size of the eastern golden eagle population and uncertainty about the distribution of that population across the two eastern flyways, we are combining the Mississippi and Atlantic Flyways into one management unit for golden eagles. For bald eagles, data indicate the Pacific Flyway should be split into three management units: Alaska, Pacific flyway north of 40 degrees N latitude to the Canadian border, and Pacific flyway south of 40 degrees N latitude to the Mexican border. See the PEIS for maps of the current and proposed EMUs. To monitor eagle populations in the future and assess whether different take thresholds are appropriate, our plan, assuming we have sufficient appropriated funding, is to conduct surveys on a 6-year rotation: One set of paired summer–winter golden eagle surveys in the first and second and fourth and fifth years of each assessment period, and to conduct bald eagle surveys in years three and six.

EMU take limits are increased accordingly because the flyway management units are fewer and larger than the EMUs currently in use (for bald eagles; golden eagle take limits would be zero in all management units, unless offset). Each flyway unit covers several current EMUs. In some ways, increasing the EMU size could be less protective of eagle populations at more local scales. However, any potential decreased protection of local eagle populations caused by increasing the size of the EMUs is more than compensated for by two provisions designed to increase protection of eagles at more local scales. First, as noted earlier, we modify the preservation standard of the Eagle Act to include the goal of maintaining the persistence of local populations throughout the geographic range of both species, and codify the new definition in the regulations at 50 CFR 22.3. The definition reads: ''*Compatible with the preservation of the bald eagle or the golden eagle* means consistent with the goals of maintaining stable or increasing breeding populations in all eagle management units and the persistence of local populations throughout the geographic range of each species.''

These revised regulations also enhance protection of eagles at the local scale by incorporating a local area population (LAP) cumulative effects analysis into the permit issuance criteria. The LAP analysis, which is detailed in Appendix F of the Eagle Conservation Plan Guidance, Module 1—Land-based Wind Energy (ECPG) (USFWS 2013), involves compiling information on permitted anthropogenic mortality of eagles within a specified distance (derived from each eagle species' natal dispersal distance) of the permitted activities' boundary. If permitted eagle take exceeds 1% of the estimated population size of either species within the LAP area, additional take is a concern. If take exceeds 5% of the estimated population size within the LAP area, additional take is considered inadvisable unless the permitted activity will actually result in a lowering of take levels (*e.g.,* permitting a repowered wind project that, in its repowered form, will take fewer eagles than before repowering).

We derive the size of the LAP by multiplying the estimated eagle density at the eagle management unit scale, as set in the 2009 Final Environmental Assessment on the Eagle Take Rule, by the size of the LAP area. We acknowledge that this approach is somewhat simplistic for at least two reasons. First, as described previously, the eagle density estimates come from nesting or late-summer population surveys and do not account for seasonal movements of eagles that occur through migration and dispersal. Second, this approach assumes that eagle density is uniform across the EMU, which is not the case. In most cases, the first simplification leads to an underestimate of true density, particularly in core wintering areas during the non-breeding months, and as such serves as an added buffer against overharvest of local nesting eagles. Assuming uniform density leads to greater relative protection of areas with higher than average eagle density within an EMU, and less relative protection in areas of lower density. Ideally, over time and with better information on resource selection and factors accounting for

variation in density, as well as improved knowledge of seasonal changes in eagle density and population-specific movement patterns, the LAP analysis can be improved to more realistically account for the true LAP impacted by projects under consideration. For now, however, LAP take thresholds allow the Service to authorize limited take of eagles while favoring eagle conservation in the face of the uncertainty.

Since publication of the ECPG, the Service has updated natal dispersal distances (the linear distance between a bird's location of origin and its first breeding or potential breeding location) for both eagle species that are used to calculate LAPs. Those distances are currently 86 miles for bald eagles and 109 miles for golden eagles. These could change in the future if additional data indicate the need for adjustment. The LAP cumulative effects analysis is described in more detail in the Status Report.

Prior to this rulemaking, the LAP cumulative effects analysis has been used as guidance. Under these revised regulations, the LAP analysis is required as part of our review of each permit application. In order to issue a permit, we must find that cumulative authorized take does not exceed 5% of the LAP, or we must demonstrate why allowing take to exceed that limit is still compatible with the preservation of eagles. One situation where we may issue a permit that would result in authorized take above 5% of the LAP is if a project is already in operation and the permit conditions would result in a reduction of take, or if compensatory mitigation offsets impacts to eagles within the LAP. Unpermitted levels of eagle take within the LAP, if known, would also be considered in assessing the potential effects of the permit on the LAP.

Incorporation of the LAP 5% limit on authorized take into the regulations will facilitate individual permit decisions; instead of needing to evaluate under an independent NEPA analysis each project in the context of other authorized take within the LAP, along with the level of unauthorized take—which is difficult or impossible to precisely determine—we have already analyzed the effects of authorizing take of up to 5% of the LAP in the PEIS for these regulations, along with a qualitative analysis of unauthorized take, and determined that it is compatible with the preservation of eagles.

The primary aim of requiring this LAP analysis is to prevent significant declines in, or extirpation of, local nesting populations. However, there is also increasing evidence of a strong tendency in both species of eagle to return to non-breeding areas (wintering areas, migration routes, and staging areas) (McIntyre et al. 2008; Mojica et al. 2008). The LAP take limits also provide protection from permitting cumulatively high levels of take of eagles that winter or migrate through the LAP area.

The take authorized within the LAP take limits is in addition to an average background rate of anthropogenic mortality (ongoing human-caused eagle mortality, most of which is not currently permitted.) For golden eagles, background anthropogenic mortality is about 10% (see the Status Report). Thus, total anthropogenic mortality for a LAP experiencing the maximum permitted take rate of 5% averages about 15%. We do not have similar mortality information for bald eagles. While we do not know exactly what level of unauthorized anthropogenic take of bald eagles is occurring, we are reasonably certain that the take we authorize for bald eagles will also be over and above a level of preexisting ongoing unpermitted take. The level of ongoing unauthorized take of bald eagles may be similar to that of golden eagles; however, bald eagles have a maximum potential growth rate about twice that of golden eagles and thus are more resilient to take. As part of the LAP analysis for both species, Service biologists would consider any available information on unpermitted take occurring within the LAP area. While evidence of excessive unpermitted take does not necessarily preclude the Service from issuing a permit, it would be taken into consideration in evaluating whether to issue the permit and is likely to entail additional environmental analysis to determine whether issuance of the permit is compatible with the preservation of eagles.

The Service considered developing specific eagle population size goals (other than the 2009 baseline) for each EMU and then using those targets to inform permit decisions within the EMUs. However, that approach is not feasible at this time given the technical and logistical complexities of working with state agencies and tribes to set population objectives at this scale within the timeframe of this action, and the lack of fine-scale information on eagle populations that would be necessary.

For disturbance to have the potential of a population effect, it has to result in a loss of potential productivity. In 2009, the Service used the EMU-specific mean number of young fledged per occupied nesting territory for each species per year as the expected loss under nest disturbance permits for each instance of nest disturbance. We use the same approach in this revision, but with updated take values based on the new productivity information for each eagle species (see the Status Report).

Nonpurposeful (Incidental) Take Permits (50 CFR 22.26)

We are changing the name of what we have been calling ''nonpurposeful take permits'' to ''incidental take permits.'' Incidental take is what § 22.26 permits authorize. We originally called them ''nonpurposeful take'' permits in order to avoid confusion with incidental take permits issued under the ESA for endangered and threatened species. However, the term ''nonpurposeful'' also caused confusion because it is not a commonly used word. The meaning of ''incidental'' is better understood. Moreover, now that this permit system is relatively well established, the potential for confusion with the ESA incidental take permit system is much reduced. Because ''nonpurposeful take'' and ''incidental take'' mean the same thing, the change in nomenclature does not in any way affect the circumstances and manner in which these permits will be issued.

In these revised regulations, the types of incidental take permits we can issue under § 22.26 are reduced from two to one. There will no longer be separate categories for standard and programmatic permits. Having two separate categories has sometimes led to confusion because it is not always possible to distinguish between what should be authorized under a programmatic versus a standard permit. Also, the term ''programmatic'' in the sense we have been using it was sometimes misunderstood because it differs from how ''programmatic'' has been typically used in the regulatory arena. ''Programmatic'' in the more traditional sense means ''following or relating to a plan or program.'' While we anticipate sometimes issuing permits to cover the effects of multiple activities within a given program (such as a military installation), our experience so far is that the more complex requests for permits we have had to date have been for single, long-term activities that have the potential to periodically take one or more eagles over the life of the project. To reduce confusion, we eliminate the distinction between standard and programmatic permits. All § 22.26 permits are now simply ''eagle incidental take permits'' or ''incidental take permits.''

Under the 2009 regulations, programmatic permits were contingent on implementation of advanced conservation practices (ACPs) developed in coordination with the Service. ACPs are defined as ''scientifically supportable measures approved by the Service that represent the best available techniques to reduce eagle disturbance and ongoing mortalities to a level where remaining take is unavoidable.'' In contrast, we have required that applicants for standard permits under the current regulations reduce potential take to a level where it is ''*practicably* unavoidable'' [emphasis added]. Thus, programmatic permit applicants were subject to a higher standard, at least theoretically. In reality, the term ''unavoidable'' is more ambiguous than it seems in theory; there is no clear distinction in practice between ''practicably unavoidable'' and ''unavoidable.'' Thus the revised regulations apply the ''practicability standard'' to all § 22.26 permits.

We are revising the definition of ''practicable'' by adopting the definition from the Service's proposed mitigation policy (*see* 81 FR 12380; Mar. 8, 2016), slightly modified for specific application to eagle permits. The new definition reads: ''*Practicable* means available and capable of being done after taking into consideration existing technology, logistics, and cost in light of a mitigation measure's beneficial value to eagles and the activity's overall purpose, scope, and scale.'' The revised definition captures the essential elements of the old definition, while promoting a consistent approach to how the Service applies compensatory mitigation requirements across all programs.

Because the concept of ACPs is based on reducing take to the point where it is unavoidable—versus ''practicably unavoidable''—and applied to the category of programmatic permits, the requirement for ACPs is removed from the regulations. As discussed above, all permittees would be required to avoid and minimize impacts to eagles to the maximum degree practicable. Although the ACP requirement no longer applies, the Service will require potential permittees to implement all practicable best management practices and other measures that are reasonably likely to reduce eagle take. Permit applicants that cannot reduce or compensate for take to levels that are compatible with eagle preservation will not qualify for a permit.

We believe a 5-year maximum permit term for permits is unnecessarily burdensome for entities engaged in long-term actions that have the potential to incidentally take bald or golden eagles over the lifetime of the activity. The 5-year maximum permit duration has had the unintended effect of discouraging proponents of long-term activities from applying for permits, despite the risk of violating the statute. With longer-term permits, the Service has the ability to build more effective adaptive management measures into the permit conditions. This approach will provide a degree of certainty to project proponents because they will have a greater understanding of what measures may be required to remain compliant with the terms and conditions of their permits in the future. This increased level of certainty allows companies to plan accordingly by allocating resources so they are available if needed to implement additional conservation measures to benefit eagles and maintain their permit coverage.

Although killing, injuring, and other forms of take of eagles are illegal without a permit, the Service cannot require any entity to apply for an eagle take permit (except under legal settlement agreements). Some project proponents build and operate without eagle take permits even in areas where they are likely to take eagles. When that occurs, the opportunity to apply avoidance, minimization, and other mitigation measures is lost. We believe that permitting long-term activities that are likely to incidentally take eagles, including working with project proponents to minimize the impacts and secure compensatory mitigation, will enhance eagle conservation in contrast to project proponents avoiding the permitting process altogether because they perceive the process as overly onerous.

Under the revised regulations, the Service will evaluate each long-term permit at no more than 5-year intervals. These evaluations will reassess fatality rates, effectiveness of measures to reduce take, the appropriate level of compensatory mitigation, and eagle population status. Long-term permits are required to include adaptive management provisions that provide for additional or changed mitigation measures under specified conditions, for example, under increasing levels of eagle take. Provided permittees are in compliance with their permit, including adaptive management measures and take levels, 5-year reviews will primarily consist of updating take estimates and related compensatory mitigation for the next 5 years. Conversely, the 5-year review provides an opportunity for the Service to amend the permit to reduce or eliminate conservation measures or other permit conditions that prove to be ineffective or unnecessary.

Under the proposed regulations, a long-term permittee may also have been required to undertake additional, practicable conservation measures not spelled out in the adaptive management permit conditions, even if the permittee is in compliance with the terms of the permit, if such measures were reasonably likely to reduce risk to eagles based on the best scientific information available. However, these final regulations limit such additional conservation measures to when authorized take levels are exceeded in a manner or to a degree not addressed in the adaptive management conditions of the permit. Based on public comment, the proposed provision appeared likely to disincentivize project proponents from seeking permits. Rather, for a permittee in compliance with permit terms and conditions, conservation and mitigation measures beyond the terms of a permit are voluntary. Take estimates and compensatory mitigation requirements would be adjusted if such measures were implemented. Permit suspension and revocation procedures will remain available for extreme cases if new measures sufficient to meet the preservation standard cannot be negotiated with the permit holder.

The revised regulations require applicants and permittees to use Service-approved protocols for conducting pre-application surveys, fatality predictions, and monitoring under permits, unless waived by the Service. The regulations provide that, if the Service has, through rulemaking procedures, officially issued or endorsed survey, modeling, or other data quality standards for the activity, those are the standards and protocols that must be used (unless the Service waives the requirement for that applicant). Applicants engaged in other activities for which the Service has not adopted official protocols must coordinate with the Service to develop project-specific monitoring and survey protocols. The requirement to use Service-approved protocols will result in more efficient permitting decisions by the Service. Submission of inadequate data, or data gathered using methods the Service cannot verify to be sound, has resulted in significant extra work and time from our staff to assess wind energy project impacts. Specific application of these requirements to wind energy facilities is described below under Survey Requirements for Incidental Take Permits for Wind Energy Facilities.

While we have not officially issued fatality prediction models or pre-application monitoring protocols for activities other than wind energy generation, or finalized post-permitting monitoring protocols for any single activity, the Service has enough information about eagle behaviors and movements to recommend and approve monitoring protocols for activities other than wind energy generation on a project-specific basis during the permit application process. We encourage project proponents to coordinate with the Service as early as possible in the project planning process to ensure they are aware of any protocols we have recommended and that they use them appropriately. Our goal is to establish additional formalized monitoring protocols for industries other than wind energy in the future.

Survey Requirements for Incidental Take Permits for Wind Energy Facilities

Many of the comments on the proposed rule focused on the subset of prospective incidental take permits that relate to wind energy. These comments were helpful, yet indicated a general lack of understanding of how the Service's proposed approach to manage incidental take at wind facilities under an adaptive management framework is intended to work. For this reason, and because the permitting approach developed for wind facilities provides an example of how the Service intends to implement incidental take permitting for other activities, we have expanded our description of the overall approach here in the preamble to the rule. The Service's emphasis on eagle incidental take permits for wind facilities reflects Administration priorities for expanded wind energy development and a desire to minimize the impacts of that growth on eagles; it does not reflect a belief that wind development poses a disproportionate risk compared to other activities that may incidentally take eagles, nor does it reflect any greater availability of permits to wind companies versus other types of industries that may need eagle incidental take permits.

Preconstruction Survey Standards for Wind Energy Facilities

In the proposed rule, the Service proposed to incorporate by reference Appendices C and D of the ECPG as standards for collection and analysis of data to support eagle incidental take permit applications for wind facilities, and we indicated our intent to develop similar standards for other activities in the future. This proposal was not supported by many commenters for a range of reasons, but primarily because of a perceived lack of demonstrated scientific credibility in the methods and tools. However, the Service does not agree that abandoning the concept of standardized data collection for permits is a tenable way forward. First, one major objective of this rulemaking is to expedite the permitting process, and our experience has been that the negotiation over and use of disparate methods for initial data collection contribute greatly to the time required to develop and process a permit application. Second, as we explain below, the Service intends to use formal adaptive management to improve the scientific rigor and the performance of the impact-prediction tools used in the eagle permitting program. The Service's adaptive management process requires a minimum level of standardization in the initial input data where those standards exist, and this will result in each permit contributing to and improving the scientific credibility of the permitting process.

For now, the only activity for which we have such standards is wind energy generation. Those standards have been through two rounds of notice and public comment, as well as two rounds of scientific peer review. Rather than incorporate the relevant appendices from the ECPG into the rule by reference, in response to the comments received the Service has instead decided to include minimal pre-construction survey standards for eagle incidental take permits for wind facilities directly in the rule itself. The rule language was developed from the specific recommendations in Appendix C of the ECPG, and represents the minimum level of information and the least sophistication in sampling design that will be acceptable for the Service to evaluate and decide whether to issue an eagle take permit for a wind facility. These standards will ensure that representative eagle exposure data are available with which to predict eagle fatalities consistent with the Service's adaptive management program. The rule allows for deviations from the minimum standards, but only if the applicant consults with the Service early in the project-development process. In most cases both the Service and permit applicant will benefit by using this exception to design surveys that are designed to accommodate variation in eagle abundance over both space and time.

The precision, consistency, and utility of data from point count surveys for eagles can be much improved by incorporating some basic, common-sense sideboards into the survey design as discussed in the ECPG (Appendix C). These include: (1) Conducting eagle surveys and small bird surveys separately, to avoid overlooking large birds while searching at a much smaller scale for small songbirds; (2) using trained observers that are capable of accurate bird identification and distance estimation; (3) distributing surveys across daylight hours (*e.g.,* morning: Sunrise to 1100 hours; midday: 1101–1600 hours; evening: 1601 hours to sunset), and by designing surveys to more intensively cover the midday period in areas where eagle flight is more likely at that time of day; and (4) conducting surveys under all weather conditions except when visibility is less than 800 meters (m) horizontally and 200 m vertically.

Adaptive Management and Wind Energy Collision Risk Modeling

An overarching issue with eagle incidental take permits is uncertainty. For wind facilities, there is considerable uncertainty regarding the risk of turbines to eagles, factors associated with that risk, and whether there are tangible ways to reduce the risk. Moreover, in 2009, when the Service established the incidental eagle take regulations, there was no scientifically accepted approach for quantitatively estimating the probability of eagle take at individual wind facilities. This quantitative probability estimation is necessary for the Service to establish a take limit for each permit and to ensure that EMU take limits are not exceeded, or if they are exceeded, that appropriate compensatory mitigation is accomplished. The Service has adopted two key principles for eagle incidental take permitting at wind facilities to address this uncertainty: (1) Use of formal adaptive management; and (2) being risk-averse at the outset with respect to estimating impacts on eagles.

The Department of the Interior has a long history of approaching decisions in situations fraught with uncertainty using adaptive management (Williams et al. 2009). Adaptive management is a process of adaptive learning, whereby: (1) Predictions are made regarding anticipated effects of an activity; (2) data regarding the outcomes of the activity are collected; (3) the predictions are updated to reflect the actual outcomes of the activity; and (4) the updated predictions are used to change the activity, either in the future at the same site or at other places where the same activity is being contemplated. The Service has described its adaptive management framework for eagle incidental take permits for wind energy facilities in the ECPG (Appendix A)

(U.S. Fish and Wildlife Service 2013), and the overall framework is intended to account for uncertainty in the effects of wind facility siting, design, and operations on eagles. More broadly than for just wind energy, the adaptive management process is also intended to address uncertainty in compensatory mitigation and the effects of take rates on eagles. With regard to managing risk, the survey, monitoring, and information collection standards for eagle incidental take permits are all designed to provide data that allow for the quantification of uncertainty, primarily by providing estimates in the form of probability distributions. This allows the Service to explicitly describe its risk tolerance (*i.e.,* being protective of eagles or protective of interests that might take eagles) for each aspect of the permitting process. Together, the adaptive management and risk management processes function as a means for describing how the risk, in the form of uncertainty, is shared between the protected resource and the regulated community.

The part of the Service's adaptive management process for eagle incidental take permits that has generated the greatest debate is the approach and model used to predict eagle fatalities at wind facilities. For that reason, and because this is an excellent example of the Service's philosophy regarding the application of adaptive management to eagle permitting, we describe the fatality prediction process here in some detail. The Service's baseline fatality prediction model, also referred to as a collision risk model (CRM), is thoroughly described in Appendix D of the ECPG and in New, *et al.* (2015). The key points are that the CRM uses: (1) A project-specific estimate of eagle exposure; (2) a project-specific estimate of the amount of hazardous area and time that will be created by the project; and (3) an estimate of the probability that an exposed eagle that enters the hazardous area will be struck and injured or killed by a turbine blade; to generate (4) an annual eagle fatality estimate in the form of a probability distribution. The model assumes a predictable relationship between eagle exposure, hazardous area, and the risk of fatalities—a relationship that existing literature, some commenters, and the Service agree is not straightforward. The ECPG identifies 11 general categories of covariates (variables that help explain variation in the parameter of interest) that the Service believes may affect eagle collision probability to some degree. However, these are not presently incorporated into the CRM because, as pointed out by peer reviewers of the draft ECPG, scientific support for the role of these factors in collision risk is speculative and not quantifiable at this time. Furthermore, the effects of these factors may be varied across locations.

The CRM uses Bayesian statistics to formally combine existing (prior) data with project-specific data to determine eagle exposure and collision probability (assuming the number and size of turbines to be built, and thus hazardous area, are known). The Service requires eagle incidental take permit applicants to conduct pre-construction eagle use surveys within the footprint of the planned wind facility to generate project-specific data on pre-construction eagle exposure. These pre-construction survey data are formally combined with prior information on eagle exposure nationally to generate a probability distribution for eagle use for the specific project area. In the case of collision probability, however, there are no project-specific data to combine with the prior data until after the project has operated for several years; thus only the prior information is available to be used for the initial collision probability estimate. The Service uses prior information on collision probability from the only wind facilities that had publicly available data on eagle use and post-construction fatalities at the time the ECPG was written in 2013. These post-construction data came from four facilities, did not include information for bald eagles, and some data were from older-style wind turbines that might have different collision probabilities than modern turbines. However, these potential data deficiencies only affect the initial eagle fatality estimates at permitted wind facilities. This is because the Service's adaptive management approach calls for formally combining the prior information with standardized data collected on actual eagle fatalities after the facility becomes operational. These updates would occur no less frequently than once every 5 years at each facility. Such updates will naturally correct for any bias in the initial ''collision-prior-based'' fatality estimate, so that the fatality estimates over most of the life of a wind facility will be heavily weighted towards actual fatality data from the site. Moreover, because the post-construction fatality information will be collected under standardized protocols required by the terms and conditions of each permit, the data can be combined with data from other permitted wind facilities to update and improve the collision probability prior for the national CRM. Thus, the Service intends to improve the predictive accuracy of the CRM both at the individual project level and nationally through standardized use as a formal part of its adaptive management process. We could not achieve improved accuracy of the CRM without standardized use of these protocols.

Uncertainty in the project-specific fatality estimates comes from both the prior and project-specific data for eagle exposure, and, initially, from the prior information on collision probability. The Service has made the decision to manage the quantified uncertainty in the CRM estimates in a manner that reduces the risk of underestimating eagle fatalities at wind facilities. The Service views this as important both to ensure the risk to eagles is not underrated, but also to minimize the chance that a permittee will illegally exceed his or her authorized eagle take limit. The median (50th quantile) fatality rate of the CRM-generated probability distribution is the point on the distribution at which there is an equal risk of under- and overestimating eagle fatalities. The Service uses the 80th quantile of the CRM fatality probability distribution to determine the take limit for incidental take permits, which shifts the risk to a 20% chance of underestimating eagle take. Improvements in the precision of the CRM estimates through adaptive management, both at the project level and nationally, should decrease uncertainty and thus shrink the magnitude of the difference between the median fatality rate and the permitted take limit over time. For now, however, the Service acknowledges that its fatality estimates for wind facilities are both higher than what is expected and higher than what is likely to be observed, and that this bias is intentional.

The Service's adaptive management approach for the incidental eagle take permits necessitates the collection of standardized pre- and post-construction data and the use of the CRM, or a model much like it, to generate and update fatality estimates. For this reason, in the proposed rule the Service contemplated codifying its current guidance regarding data collection and fatality predictions in the regulations. There was considerable opposition to this among commenters, with most opponents citing the need to remain flexible so that new information could be incorporated rapidly into the permitting process. In response to these comments, the Service has modified its proposal for the final rule in two substantive ways. First, the final regulations do not incorporate by reference Appendices C and D of the ECPG. However, because the adaptive

management process cannot function credibly without standardized pre-construction site-specific eagle exposure data, the Service has instead incorporated minimum standards for such data directly into the final rule, subject to waiver under exceptional circumstances (see above discussion on pre-construction survey protocols for wind energy facilities). Second, the Service will not require permit applicants to use the CRM to estimate eagle fatalities for their permit applications. Instead, project proponents can use any credible, scientifically peer-reviewed model to generate eagle fatality and associated uncertainty estimates for their permit applications. The Service will then use the standardized project data supplied by the permit applicant and the Service's CRM to generate a predicted number of fatalities for each incidental eagle take permit for a wind facility, and the 80th quantile of the CRM estimate will be the take limit for the permit except under exceptional circumstance. The Service will treat any alternative models used by the permit applicant as candidate models whose performance may be compared formally to that of the CRM as part of the adaptive management process. Any alternative models that, over time, demonstrate better or comparable predictive performance to the CRM could eventually be formally incorporated into the adaptive management process for estimating permit take limits.

The Service intends the adaptive management process to eventually provide: (1) A better understanding of, and ability to quantify, factors associated with eagle collision risk; (2) a more accurate estimate of collision probability for bald eagles, and (3) data suitable for updating the original golden eagle collision and exposure priors (the exposure prior is the average eagle exposure value based on all available previously existing information) for the CRM. However, to date, so few incidental take permits have been issued at wind facilities that no progress has been made in these areas. In particular, the lack of progress towards updating the collision probability prior has generated opposition to the entire eagle incidental take permit adaptive management process. Wind facility operators and their consultants believe the CRM with the original collision prior (the estimated probability, based on all available previously existing information, that an eagle that flies into the hazardous area around wind turbine will collide with a blade) produces fatality estimates that are too large, and in cases where compensatory mitigation is required (*e.g.,* for take of golden eagles), the mitigation requirements exceed what is necessary. This concern is offset somewhat by the Service's policy that excess mitigation accomplished in the first 5 years of a wind project's operations will be credited towards future year obligations (which, as described briefly above and in more detail below, will be based on CRM estimates that are adjusted after no more than 5 years of operation to include a site-specific collision probability). However, this policy has not appreciably reduced concern about use of the CRM, as expressed by many commenters on the proposed rule. To address this particular concern, within 18 months the Service intends to update the collision prior for the CRM using publicly available data collected at wind facilities operating without incidental eagle take permits. The Service believes that these types of data can be appropriate for such an update, provided the data and protocols under which they were collected can be verified and shown to be appropriate, and that the wind facilities that make their data available are sufficiently representative of a cross section of wind facilities in operation today. The Service is already engaged in a process to update priors and other data for modeling eagle take and plans to revise the CRM and Appendix D of the ECPG through a public process. As part of this process the Service will also consider ways of expediting improvements in the CRM relative to incorporating other covariates associated with eagle risk and a species-specific prior collision probability for bald eagles.

As stated above, the Service intends to maintain its policy of disproportionately sharing risk to avoid underestimating eagle take at individual wind facilities. We believe this is appropriate because the consequences of underestimating eagle take are far greater than the consequences of overestimating take, and not just because of unintended consequences on eagle populations. Avoiding underestimating eagle take significantly reduces uncertainty for permittees. For example, if eagle take at the individual permit level was consistently underestimated, many permittees would exceed their permitted take limits, necessitating permit amendments, additional costly and unplanned after-the-fact compensatory mitigation actions, and possible enforcement with associated fines. For bald eagles with positive EMU take thresholds, consistently underestimating take could lead to permitted take exceeding the EMU take limit, which would necessitate retroactively requiring permittees that initially had no compensatory mitigation requirements to implement mitigation after the fact. Further, if LAP take limits were unexpectedly exceeded, NEPA compliance for permits overlapping the affected LAP would have to be reviewed. Although these consequences are most likely if there is a systematic bias in the fatality estimates themselves, even with an unbiased estimator, some of these consequences could be expected with 50% of permits if the Service were to use the median fatality rate as the take limit for individual permits. In contrast, if permitted take is set at a higher percentile of the fatality prediction, the primary consequences are that the permittee is likely to exceed actual compensatory mitigation requirements over the first 5 years of operation (if compensatory mitigation is required). Additionally, the Service would likely routinely debit some take from the EMU and LAP take limits unnecessarily, thereby underestimating available take when considering new permit requests. Both of these issues are at least partially remedied when initial take estimates for projects are adjusted with project-specific fatality data after the first 5 years of operation. At that time, permittees receive credit for any excess compensatory mitigation they have achieved, as described above, and the debits from the EMU and LAP take limits are recalibrated to reflect the updated expectations for future take. These actions are comparatively simple to implement, and do not have the same kind of far-reaching consequences as with underestimates.

Monitoring and Mitigation

Most permittees will be required to monitor eagle take to assess whether and how much take occurs under the permit. Reported take will be based on surveying and monitoring protocols required by the permit. For permits for disturbance, such monitoring is likely to consist of regular visits to the proximity of the nest site or other important eagle-use area where disturbance is likely to occur to observe whether eagles are using the area.

We agree with the large number of commenters that urged the Service to require third-party monitoring for some permits. As we stated in the preamble to the proposed regulations, we were considering that option. These final regulations require that, for all permits with durations longer than 5 years, monitoring must be conducted by qualified, independent entities report

directly to the Service. In the case of permits of 5-year durations or shorter, such third-party monitoring may be required on a case-by-case basis. We do not believe there will be significant additional costs imposed by the requirement for third-party monitoring. Most companies already rely on and pay for consultants to conduct project monitoring, presumably because it is more cost-effective than supporting those activities ''in-house.''

We expect that most long-term permits will authorize incidental lethal take rather than disturbance. Those conducting monitoring for permits that authorize eagle mortalities will be required to search for injured and killed eagles and to estimate total take using methods approved by the Service. Permittees will be required to document and report all eagles that are found, the methodologies employed to search for them (including whether or not they were detected as part of a formal survey methodology), and the methods used to estimate the probability of detection.

The Service defines ''mitigation'' to sequentially include: Avoidance, minimization, rectification, reduction over time, and compensation for negative impacts. Under Departmental policy (600 DM 6), ''compensatory mitigation'' means ''to compensate for remaining unavoidable impacts after all appropriate and practicable avoidance and minimization measures have been applied, by replacing or providing substitute resources or environments (*see* 40 CFR 1508.20) through the restoration, establishment, enhancement, or preservation of resources and their values, services, and functions.'' The 2009 eagle regulations lack specificity with regard to when compensatory mitigation will be required, and the preamble discussion of compensatory mitigation was somewhat inconsistent. In reference to nonpurposeful take permits, the preamble to the 2009 regulations contained the following language: ''additional compensatory mitigation will be required only (1) for programmatic take and other multiple take authorizations; (2) for disturbance associated with the permanent loss of a breeding territory or important traditional communal roost site; or (3) as necessary to offset impacts to the local area population. Because permitted take limits are population-based, we have already determined before issuing each individual take permit that the population can withstand that level of take. Therefore, compensatory mitigation for one-time, individual take permits will not typically be necessary for the preservation of eagles'' (74 FR 46836, p. 46844). Regarding the § 22.27 nest take permits, we indicated in the preamble that we would require compensatory mitigation for all permits except those issued for safety emergencies (74 FR 46836, p. 46845).

The Service also addressed compensatory mitigation in the 2009 FEA, which contained the following language: ''For most individual take permits resulting in short-term disturbance, the Service will not require compensatory mitigation. The population-based permitting the Service will propose is based on the level of take that a population can withstand. Therefore, compensatory mitigation for individual permits is not necessary for the preservation of eagles. However, the Service will advocate compensatory mitigation in the cases of nest removal, disturbance or [take resulting in mortality] that will likely incur take over several seasons, result in permanent abandonment of more than a single breeding territory, have large-scale impacts, occur at multiple locations, or otherwise contribute to cumulative negative effects'' (USFWS, 2009).

Because the 2009 regulations did not incorporate specific compensatory mitigation provisions, the Service has required compensatory mitigation on a case-by-case basis somewhat inconsistently, particularly for bald eagles, which has at times resulted in differing treatment of, and uncertainty for, permit applicants. Accordingly, this rule includes standardized requirements for compensatory mitigation. In addition to the mitigation requirements set out in this rule, the Service will implement these regulations in a manner consistent with Service, Departmental, and Presidential mitigation policies.

These regulations require compensatory mitigation for any permit authorizing take that would exceed authorized take limits. Compensatory mitigation for this purpose must demonstrate it offsets authorized take by reducing another ongoing form of mortality by an equal or greater amount than the unavoidable mortality, or increasing the eagle population by an equal or greater amount.

Since 2009, take limits for golden eagles have been set at zero throughout the United States. Accordingly, all permits for golden eagle take would exceed the take limits, and so must incorporate compensatory mitigation in order to authorize that take. A permittee would have to compensate for authorized take within the same EMU (except that we would allow for compensatory mitigation of take of Alaskan golden eagles throughout the migration and wintering range in the interior western United States and northern Mexico).

The best available information indicates that ongoing levels of human-caused mortality of golden eagles likely exceed sustainable take rates, potentially significantly. This means that the golden eagle population is likely in decline and not meeting the Service's preservation goal of a stable or increasing breeding population. As a result, compensatory mitigation for any authorized take of golden eagles that exceeds take thresholds will be designed to offset the authorized take at a 1.2 to 1 mitigation ratio to further an outcome consistent with the preservation of golden eagles as the result of the permit. We believe this baseline mitigation ratio appropriately balances meeting our obligations under the Eagle Act with what is reasonable, fair, and practicable to permittees. Based on the uncertainty in the effectiveness of a particular compensatory mitigation practice and other factors common to mitigation programs, we may require further adjustments to mitigation ratios.

To be compatible with the preservation of eagles, take that would compromise the persistence of local populations of eagles may also require compensatory mitigation. The regulations account for this by generally requiring compensatory mitigation for cumulative authorized take exceeding 5% of the LAP to ensure our eagle preservation standard is being met. An exception would be when the EMU take limit is not exceeded (*i.e.,* currently the case for bald eagles in all EMUs), the permitted take is already occurring, and the permit conditions would result in a reduction of take.

We may also require compensatory mitigation when there is an unusually high level of unauthorized eagle mortality in the LAP (for example, when the Service has information indicating that unauthorized take exceeds 10% of the LAP). We have no data to indicate that ongoing unauthorized take of bald eagles is less than that of golden eagles, and intend to apply the LAP analysis and assessment of any known ongoing unauthorized take to bald eagles as well as golden eagles, as we have been doing while the LAP analysis remains guidance. Although exceeding 5% permitted take of the LAP will have significantly less dramatic effects to local bald eagle populations because of the improved status of bald eagles, states, tribes, and localities have communicated their interest in seeing regulatory safeguards to protect local bald eagles as well as golden eagles. In

the near future, it is unlikely that cumulative authorized take of local area populations of bald eagles will exceed 5% anywhere in the country. The Service will continue to collect data to refine our understanding of cumulative mortality on both eagle species and may adjust take rates in the future. We received comments asserting that it is unfair for the Service to impose a greater than one to one compensatory mitigation ratio for golden eagle take permits because people seeking to comply with the regulations should not be required to address impacts caused by other human activities for which no one is being held accountable. Similar concerns were expressed regarding the consideration of unauthorized take within the LAP when making permitting decisions. Additional commenters asserted that the Service does not adequately enforce the Eagle Act. In response to all of those comments, we wish to clarify that, outside of its permitting programs, the Service is addressing unauthorized take of bald eagles and golden eagles through a variety of means. The Service's Office of Law Enforcement expends considerable time and resources protecting both species. Because golden eagles in particular are experiencing significant amounts of human caused mortality, they are receiving high levels of investigative effort throughout the western United States. These investigations have covered the unlawful killing and trafficking of eagles and their parts, electrocutions of eagles from electrical distribution infrastructure, intentional or incidental poisoning of eagles, eagle mortality due to wind turbine strikes, eagle nest destruction, and a host of other human activities that result in eagle deaths. Investigation and prosecution of these crimes can be very time intensive, with some investigations requiring many hundreds of hours to complete.

Many of these investigations require thorough review of historical information on the activity causing the mortality, investigation of the responsible party's efforts to avoid the eagle deaths, and presentation of investigative results to the Department of Justice (DOJ) for potential prosecution. This is often accomplished through subpoenas, search warrants, field inspections (often in remote areas), evidence collection, interviews, and report writing. For activities involving the intentional killing and trafficking of eagles, the investigative techniques can also include the use of undercover operations to gain evidence and better document the extent of the unlawful activity. In short, the Service's Office of Law Enforcement places a high priority on protecting bald and golden eagles, and expends considerable effort on education, outreach, and investigations to fulfill this responsibility.

This final rule establishes standards applicable to all compensatory mitigation in accordance with principles and standards set forth in Service and Departmental and Executive Branch policy. Compensatory mitigation is to be used to offset remaining impacts after the application of all practicable avoidance and minimization measures. Compensatory mitigation must be sited within the same eagle management unit where the permitted take will occur unless the Service has reliable data showing that the population affected by the take includes individuals that are reasonably likely to use another EMU during part of their seasonal migration. Compensatory mitigation must be based on the best available science and must use rigorous compliance and effectiveness monitoring and evaluation to make certain that mitigation measures achieve their intended outcomes or that necessary changes are implemented to achieve them.

Compensatory mitigation must provide benefits beyond those that would otherwise have occurred through routine or required practices or actions, or obligations required through other legal authorities or contractual agreements. A compensatory mitigation measure is ''additional'' when the benefits of the measure improve upon the baseline conditions of the impacted eagle species in a manner that is demonstrably new and would not have occurred without the required compensatory mitigation measure. Voluntary actions taken to benefit eagles in anticipation of and prior to issuance of an eagle take permit may be credited towards compensatory mitigation requirements. Such actions must meet all mitigation standards set forth in the rule for compensatory mitigation. Applicants must provide clear evidence that the voluntary action was undertaken to fulfill compensatory mitigation requirements under this rule. The Service will determine whether and how much to credit such actions. Potential applicants intending to take voluntary conservation actions prior to permit application are encouraged to seek technical assistance from the Service.

Compensatory mitigation must be durable and, at a minimum, maintain its intended purpose for as long as the impacts of the authorized take persist. The Service will require that implementation assurances, including legal, contractual, and financial assurances, be in place when necessary to assure the development, maintenance, and long-term viability of the mitigation measure. Compensatory mitigation must also include mechanisms to account for and address uncertainty and risk of failure of a compensatory mitigation measure. This could be in the form of greater mitigation ratios, the establishment of buffers or reserve accounts, or other mechanisms.

Compensatory mitigation may include conservation banking, in-lieu fee programs, and other third-party mitigation projects or arrangements. In approving compensatory mitigation mechanisms and actions, the Service will ensure the application of equivalent ecological, procedural, and administrative standards for all compensatory mitigation mechanisms. The Service prefers that compensatory mitigation is conducted prior to when the impacts of the action occur. Where compensatory mitigation is required, the applicant must commit to the funding and method that will be used prior to or upon permit issuance. For long-term permits, permittees will be required to provide compensatory mitigation to offset predicted take over each 5-year period. If reliable reported data demonstrate that a given permit holder/project is causing fewer impacts to eagles than originally permitted (*e.g.,* actual take of eagles is lower than predicted), permittees can carry forward ''unused'' compensatory mitigation credits to the next 5-year review period.

The Service will develop guidance for different types of compensatory mitigation projects for eagles, for example power pole retrofits to reduce eagle electrocution. Guidance will include methods and standards for determining credits (*i.e.,* how much of the type of mitigation is needed to offset one eagle), mitigation ratios based on uncertainty, temporal loss and related factors, durability assurance requirements, compliance and effectiveness monitoring requirements, and other important implementation considerations. When practical, we will involve stakeholders in the development of such guidance.

Additional Revisions

These regulations include several minor revisions to the prioritization criteria that govern the order in which the Service will prioritize authorization of take if EMU take limits are approached. The priority after safety emergencies for Native American take for religious purposes that depends on take of wild eagles (and as such cannot

be met with eagle parts and/or feathers from another source, such as the National Eagle Repository) is amended so that it applies to *increased* need for take for religious purposes. Historical tribal take for religious use requiring take of eagles from the wild that has been ongoing, but not authorized, generally does not need to be prioritized because it is part of the environmental baseline set in the 2009 FEA. However, increases in historical take levels would not be part of the current baseline. We also are removing the reference to rites and ceremonies because traditional take for religious and cultural purposes may not be limited to, or properly characterized as being part of, specific rites and ceremonies. In addition, we are changing the prioritization order by removing the priority for renewal of programmatic permits, since the regulations would no longer contain a separate category for programmatic permits.

Unauthorized eagle take is prohibited by law. The options available for addressing future eagle take differ from those for addressing past take. Future take may be addressed proactively through a nonpurposeful (incidental) take permit issued under the Eagle Act and the 50 CFR part 22 permit regulations. If such a permit is sought by an applicant and issued by the Service, it will protect the permittee from criminal prosecution or civil law enforcement for any eagle take authorized by the permit.

If enforcement action has been taken to address past eagle take by an applicant, then the Service will consider any pending or completed resolution of that enforcement when evaluating an application and determining whether to issue an eagle incidental take permit. The Service will do so in order to be consistent with the general responsibility criteria set out in 50 CFR part 13 for all permits (whether or not eagle permits) issued under 50 CFR Subchapter B. A permit can be issued without resolving unauthorized past eagle take; however, the applicant continues to be subject to an enforcement action at any time for unpermitted prior take of eagles. Depending on the circumstances of a past take, the U.S. Department of Justice or the Service's Office of Law Enforcement may determine that enforcement is warranted using appropriate enforcement authorities. The Service will take into consideration the nature, circumstances, extent, and gravity of the prohibited acts committed in the violation and with respect to the violator the degree of culpability and cooperation, history of noncompliance, levels of past take, and efforts to reduce take. The statute of limitations for criminal and civil enforcement actions is five years.

These revised regulations include a provision at § 22.26(f)(7) that requires the Service to determine, before issuing a permit, that issuance of the permit will not interfere with an ongoing civil or criminal action concerning unpermitted past eagle take at the project. One element of civil and criminal cases is establishing that take of eagles is not permitted, requiring coordination between the Service law enforcement and migratory bird programs early in an investigation. Later in the process, court judgments may include a sentencing or probation condition that an eagle take permit be sought, or where settlement negotiations have been successful, the settlement agreement often includes a requirement that a company apply for an eagle take permit. Without such a determination, issuance of a permit might in some cases disrupt the ongoing investigation, prosecution, or negotiation process.

To recoup the cost of processing longer-term permits, which are generally complex due to the need to develop robust adaptive management measures, we will assess a $36,000 permit application processing fee for eagle incidental take permits of 5 years duration or longer. This fee is the same as the fee we currently require to process programmatic permits. A commercial applicant for an incidental take permit of a duration less than 5 years will pay a $2,500 permit application processing fee, an increase from the current fee of $1,000 for programmatic permits and $500 for standard permits. The amendment fee for those permits would increase from $150 to $500. The proposed higher fees for commercial entities would recover a larger portion of the actual cost to the Service, including technical assistance provided to the potential applicant by the Service prior to receiving the actual permit application package. Commercial entities have the opportunity to recoup the costs of doing business by passing those costs on to their customers. The incidental take permit application processing fee for homeowners and other non-commercial entities remains $500, and the amendment fee for those permits is unchanged at $150.

We will assess a user fee called an ''administration fee'' every 5 years for long-term permits to cover the cost to the Service of conducting the 5-year evaluation and developing any appropriate modifications to the permit. The proposed rule would have implemented a $15,000 administration fee but, based on changes to the rule, and upon subsequent analysis, we have determined that an $8,000 administration fee more accurately accounts for costs the Service is likely to incur during a ''typical'' 5-year permit review. We will adjust the fee amount in future rulemakings if experience shows that $8,000 is either too high or too low to accurately account for costs.

We are removing the provisions for transfer of a programmatic permit from a permittee to another entity that were codified at § 22.26(i). Those provisions were unnecessary because § 13.25(b) already provides for transfer of § 22.26 eagle incidental take permits. The Service is reviewing permit applications from, and continuing to provide technical assistance to, applicants with complex projects who are in the process of applying for eagle take permits. To prevent many of them from having to effectively restart the application process due to these revisions to the regulations, we are incorporating a 6-month ''grandfathering'' period wherein applicants (persons and entities who have already submitted applications) and project proponents who are in the process of developing permit applications can choose to apply (or re-apply) either under all the provisions of the 2009 regulations or all the provisions of these final regulations.

The 2013 Duration Rule established a definition of ''low-risk'' projects that was subsequently vacated by a federal district court decision (*Shearwater* v. *Ashe,* No. 5:14–cv–02830 LHK (N.D. Cal. Aug. 11, 2015)). After subsequent consideration, we found this definition to be counter-productive. In the Duration Rule, the Service defined ''low-risk'' in a footnote to 50 CFR 13.11(d)(4) as a project or activity that is unlikely to take an eagle over a 30-year period and the applicant for a permit for the project or activity has provided the Service with sufficient data obtained through Service-approved models and/or predictive tools to verify that the take is likely to be less than 0.03 eagles per year (or less than 1 eagle over a 30-year period). In retrospect, that definition would not have proved useful because it would have covered only those projects where take is essentially negligible, and, therefore, the project would likely not require a permit in the first place. We see utility in redefining ''low-risk'' to include projects with a slightly higher probability of taking eagles, but which cumulatively will still be compatible with eagle management objectives. However, despite seeking input from the public and considerable staff effort, we were unable to develop

a definition of ''low-risk'' that could be consistently applied throughout the United States while achieving our desired goals for a ''low-risk'' category. The Service considered basing the low-risk category on (1) a flat number of eagles predicted to be taken, (2) a percentage of the local area population (LAP), (3) a hybrid of those two, and (4) the geographic and physical features of the area where the project will be located. Each of these approaches produced conflicting results due to the significant discrepancies that exist between eagle population densities and resilience, habitat variability, and project scales.

Accordingly, we did not propose a revised definition for low-risk projects in the proposed rule. Instead, we again sought comment on how to define ''low-risk'' or ''low-impact'' take of eagles, and on other approaches for authorizing take, such as a general permit authorization. The proposed rule stated that while comments would be outside the scope of this rulemaking action, we would keep them on file for later consideration in a future rulemaking. Several commenters provided input on this topic, and we will retain those comments to help inform future guidance or rulemaking. We intend to continue the public process to further develop criteria and an approach that minimizes the costs of compliance for the public and the demand for agency resources for projects that will result in no more than minimal individual and cumulative adverse effects on eagles.

Eagle Nest Take Permits (50 CFR 22.27)

Under the 2009 eagle nest take regulations (50 CFR 22.27), the Service can issue permits for removal, relocation, or destruction of eagle nests where (1) necessary to alleviate a safety emergency to people or eagles, (2) necessary to ensure public health and safety, (3) the nest prevents the use of a human-engineered structure, or (4) the activity or mitigation for the activity will provide a net benefit to eagles. Only inactive nests may be taken except in the case of safety emergencies. Inactive nests are defined by the continuous absence of any adult, egg, or dependent young at the nest for at least 10 consecutive days leading up to the time of take.

As with § 22.26 incidental take permits, these rule revisions eliminate the distinction between programmatic and standard permits for § 22.27 nest take permits. The permit fee for removal or destruction of a single nest will remain at $500. For the same reasons as described above for § 22.26 permits, a commercial applicant for a nest take permit for a single nest will pay a $2,500 permit application processing fee, an increase from the current fee of $500 for standard permits and $1,000 for programmatic permits. The amendment fee for those permits will increase from $150 to $500. For permits to take multiple nests, the fee is $5,000 versus $1,000 for programmatic permits, currently. For homeowners and other non-commercial entities, the nest take permit application processing fee and amendment fee will not change.

These revised regulations also revise several definitions applicable to nest take permits to better comport with terms used in scientific literature. Nests that are not currently being used for reproductive purposes are defined as ''alternate nests,'' while nests that are being used are ''in-use nests.'' Some commenters suggested the latter be called ''occupied nests,'' but we believe that term would cause confusion because nests are in use for breeding purposes prior to being physically ''occupied'' by nestlings or an incubating adult. An ''in-use nest'' is defined as ''a bald or golden eagle nest characterized by the presence of one or more eggs, dependent young, or adult eagles on the nest in the past 10 days during the breeding season.'' This definition includes the period when adults are displaying courtship behaviors and are building or adding to the nest in preparation for egg-laying. We define ''alternate nest'' as ''one of potentially several nests within a nesting territory that is not an in-use nest at the current time.'' When there is no in-use nest, all nests in the territory are ''alternate nests.''

We are revising the definition of ''eagle nest'' from ''any readily identifiable structure built, maintained, or used by bald eagles or golden eagles for the purpose of reproduction'' to ''any assemblage of materials built, maintained, or used by bald eagles or golden eagles for the purpose of reproduction.'' The words ''readily identifiable'' were not helpful for clarifying when a structure was or was not a nest since a structure might appear to be just a pile of sticks to one person, or an osprey nest to a second person, but clearly an eagle nest to someone familiar with eagle nests. The confusion caused by the words ''readily identifiable'' sometimes put in jeopardy nests in the early stages of being built, or nests that are used from year to year but are substantially damaged during the non-breeding season by wind or weather.

The revised provision at § 22.27(a)(1)(i) enables us to issue a permit to remove an in-use nest to prevent a rapidly developing safety emergency situation, instead of waiting until the emergency is exigent. Without this addition, the Service has been faced with having to wait until the fully developed state of emergency had arrived, and the delay has sometimes been to the detriment of the eagles because, while the safety emergency developed, the breeding pair had the opportunity to lay eggs.

The 2009 regulations provide that the Service can issue a nest take permit for an inactive (''alternate'') nest that is built on a human-engineered structure and creates a functional hazard that renders the structure inoperable for its intended use. We are revising this provision to also allow for removal of an in-use nest prior to egg-laying in order to prevent the foreseeable functional hazard from coming to fruition. The revised regulatory language allows nest removal at an earlier stage that may provide eagles an opportunity to re-nest elsewhere while also preventing the nesting eagles from rendering the human-made structure inoperable.

We are removing the requirement that suitable nesting habitat be available in the area nesting population to accommodate displaced eagles for non-emergency nest take. The provision has been problematic because, in many healthy populations of bald eagles, suitable nest sites are all occupied. As part of the permit application review process, the regulations retain consideration of whether alternate nest sites are available to the displaced eagles, but an affirmative finding is not a requirement for issuing a permit.

The Service will consider whether other nests are available in the ''nesting territory,'' rather than in the ''area nesting population.'' We defined ''area nesting population'' in 1982 as ''the number of pairs of golden eagles known to have a resting [sic] attempt during the preceding 12 months within a 10-mile radius of a golden eagle nest.'' In addition to the typo (*i.e.,* ''resting'' instead of ''nesting''), the definition is problematic for bald eagles, not only because it omits reference to bald eagles, but also because a 10-mile radius around a bald eagle nest has no particular biological significance. For both species of eagles, consideration of whether the nesting pair may be able to use a different nest should focus primarily on the pair's nesting territory. In some cases, that determination may require looking beyond any known alternate nests in order to verify that those nests are not actually part of a different pair's nesting territory. However, it will not always require surveys of the area within the 10-mile

radius of the nest. We define ''nesting territory'' as ''the area that contains one or more eagle nests within the home range of a mated pair of eagles, regardless of whether such nests were built by the current resident pair.'' This definition replaces the current definition of ''territory.'' The two definitions are functionally similar, but the new definition of ''nesting territory'' is more in line with terminology used in the biological community.

Under the 2009 regulations, if a nest containing viable eggs or nestlings must be removed, transfer of the nestlings or eggs to a permitted rehabilitator or placement in a foster nest was required. However, there are circumstances when such placement is simply not possible; for example, in Alaska, the closest permitted rehabilitator may be a day's drive or more away. Nests with viable eggs or nestlings can be removed only in safety emergencies, and the requirement for transfer of eggs and nestlings has sometimes meant that the Service could not legally issue a permit necessary to alleviate the safety emergency. To address this problem, we are adding a provision allowing the Service to waive the requirement if such transfer is not feasible or humane. The Service will determine the disposition of the nestlings or eggs on a case-by-case basis in that scenario.

As with the prioritization criteria in § 22.26, these regulations amend the prioritization criteria for nest take permits to remove any priority for allocation of take to renewal of programmatic permits since that permit category is being removed. Also, the prioritization for Native American religious take is amended in the same manner as for § 22.26 incidental take permits (see earlier discussion).

These revised regulations adopt mitigation standards for taking eagles nests under § 22.27 that are similar to those we are adopting for § 22.26. The exception is that permits issued under paragraph (a)(1)(iv) must apply appropriate and practicable compensatory mitigation measures as specified in the permit to provide a net benefit to eagles if the permitted activity itself does not provide a net benefit to eagles. Permits issued under paragraph (a)(1)(iv) are not limited to situations involving a safety or health issue or an obstruction to a manmade structure; they can be issued to take alternate (currently called ''inactive'') nests for any reason as long as there will be a net benefit to eagles scaled to the effects of the nest removal. If the activity itself has a net benefit, compensatory mitigation would not be required. For example, a nest might be flooded during a riparian restoration project undertaken to provide improved habitat for eagles. Where the activity itself does not benefit eagles, the net benefit must be through compensatory mitigation.

Several commenters suggested we eliminate the requirement for a ''net benefit'' for permits issued under paragraph (a)(1)(iv). In general, we believe the requirement to provide a net benefit is appropriate, particularly now that we will promote the use of conservation banks, in-lieu fee programs, and other third-party arrangements to carry out the necessary measures to benefit eagles. These types of programs can leverage relatively small amounts of funding to provide significant benefits on the ground. Also, many nests for which permits are sought for removal are lower quality nests, not having been used in some time and degraded, or some new nests in areas of high eagle density. In those cases, the amount of compensatory mitigation may be relatively low. Data show that productivity in highly saturated eagle populations decreases due to nests being built in less than ideal locations in relation to food sources and/or increased competition and fighting among nesting pairs. In such situations, the required net benefit would reflect that lower biological value.

Permit Application Fees (50 CFR 13.11)

The regulations include minor revisions to the permit application processing fee table in 50 CFR 13.11. We are removing the column for Administration Fees because those fees apply only to eagle incidental take permits and not to any other type of Service permit listed in the table. The requirement for administration fees is instead incorporated into § 22.26. The table at § 13.11 also includes the updated fees for incidental take permits for commercial entities, long-term incidental take permits, nest take permits for commercial entities, and nest take permits for multiple nests.

Scope of Eagle Regulations (50 CFR 22.11)

Paragraph § 22.11(c) is revised by replacing ''[Y]ou must obtain a permit under part 21 of this subchapter for any activity that also involves migratory birds other than bald and golden eagles, and a permit under part 17 of this subchapter for any activity that also involves threatened or endangered species other than the bald eagle'' with ''[A] permit under this part authorizes take, possession, and/or transport only under the Bald and Golden Eagle Protection Act and does not provide authorization under the Migratory Bird Treaty Act (MBTA; 16 U.S.C. 703–712) or the Endangered Species Act for the take, possession, and/or transport of migratory birds or endangered or threatened species other than bald or golden eagles.'' The original language was promulgated prior to the bald eagle being removed from the ESA List of Endangered and Threatened Wildlife as part of a final rule authorizing transport of eagle parts. The original intent of § 22.11(c), as explained in the final rule published in the **Federal Register**, was that a permit holder transporting items that contained not only eagle parts, but also parts of other species protected by the Endangered Species Act or the MBTA, into or out of the country would need to ensure he or she possessed the applicable permits for those protected, non-eagle species in order to legally transport the item (*see* 64 FR 50467; Sept. 17, 1999). However, this provision could be read to limit the Service's discretion to decide the appropriate manner of authorization for activities that affect other protected species outside the context of transportation of items containing eagle parts. For example, § 22.11(c) could be read to preclude the Service from using intra-Service section 7 consultation to analyze and exempt non-jeopardizing ESA take that may result from the Service's issuance of an Eagle Act permit to a project proponent. Thus, we are amending § 22.11(c) to ensure it does not limit our discretion to apply the appropriate authorization under the ESA or the MBTA for activities that involve other species protected by those statutes.

Golden Eagle Nest Take Permits for Resource Development and Recovery (50 CFR 22.25)

The regulations include several revisions to the regulations for permits for take of inactive golden eagle nests for resource development and recovery operations. The purpose of these revisions is to incorporate terminology consistent with the § 22.27 eagle nest take permit regulations. Changes to § 22.25 in this rulemaking are limited to those necessary for consistency with § 22.27, with a few additional minor revisions, as explained below.

A new definition, ''alternate nest'' refers to a nest that is not currently being attended by eagles for breeding purposes. Under the 2009 regulations, such a nest was an ''inactive nest,'' the definition for which is removed from the regulations. We are also removing references to the ''area nesting population.'' As with § 22.27 nest take permits (discussed above), the relevant area of consideration is the nesting

territory. Rather than needing to evaluate whether there is suitable nesting habitat available within the area nesting population, the Service will consider whether alternate nests are available within the nesting territory. It may be appropriate in some cases to survey golden eagle nests within the 10-mile radius to determine whether nests assumed to be in the same territory as the one being removed are not actually in a different breeding pair's nesting territory. Loss of a nesting territory does not preclude the Service from issuing a permit, but such loss will be part of our consideration of whether the take is compatible with the preservation standard and what amount of mitigation is necessary.

We add the phrase ''and monitoring'' to paragraph (b)(4) of the § 22.25 permit regulations. We do, as a matter of course, require monitoring as a condition of these permits, so the regulation should be clear that we may require the permittee to monitor effects to eagles from the permitted activity and mitigation measures. Lastly, we replace the word ''feasible'' with ''practicable'' in reference to the mitigation that we will require, consistent with § 22.26, § 22.27, and agency mitigation policy.

Response to Public Comments

The following section contains the substantive public comments we received on the proposed regulation revisions and our responses that explain why we do or do not incorporate the changes suggested by each commenter into this final rule. Comments that pertain to the biological framework and eagle management objectives described in the Status Report and PEIS are not included below, and are instead addressed in Appendix A to the final PEIS. Also not included below are the many comments supporting various provisions of the rulemaking. We also received numerous comments recommending regulatory actions pertaining to permits for eagle depredation, eagle falconry, and eagle propagation. We do not respond to those comments here because they are outside the scope of this rulemaking, but we will consider them if and when we initiate a rulemaking process for those permit types.

Rulemaking Process

Comment: Because the proposed rule will have cumulative effects on endangered and threatened species that share habitats with eagles, the Service must engage in section 7 consultation on the entire rule. The Service's assertion that the issuance of an eagle act permit is not the ''direct cause of habitat degradation,'' and hence such degradation need not be addressed as part of the NEPA process or in section 7 consultation, is legally unsupportable. Since the Eagle Act categorically prohibits the ''take'' of eagles without the Service's permission, a Service authorization of eagle takes that could not otherwise lawfully occur surely is the legal ''cause'' of not only the deaths of eagles and other wildlife from turbine operation, but also the associated habitat degradation due to road and associated infrastructure construction.

Response: Section 7 of the ESA requires Federal agencies to consult to ''insure that any action authorized, funded, or carried out'' by them ''is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [critical] habitat.'' 16 U.S.C. 1536(a)(2). Intra-Service consultations and conferences consider the effects of the Service's actions on listed, proposed, and candidate species. Our proposed action of issuing regulations regarding take of non-ESA-listed eagles does not authorize, fund, or carry out any activity that may affect—directly or indirectly—any ESA-listed species or their critical habitat. *See, e.g., Sierra Club* v. *Bureau of Land Mgmt.,* 786 F.3d 1219 (9th Cir. 2015). Indeed, the Eagle Act does not empower us to authorize, fund or carry out project activities by third parties. The BGEPA empowers us to authorize take of bald and golden eagles. Thus, we have determined that these revisions have no effect on any listed, proposed, or candidate species or their critical habitat. As a result, section 7 consultation is not required on this proposed action. As appropriate, we will conduct project-specific section 7 consultations in the future if our proposed act of issuing a permit for take of eagles may, in and of itself, affect ESA-listed species or critical habitat. Regarding NEPA, we have analyzed the environmental effects of this rulemaking and our eagle permit framework in general in the PEIS associated with this rulemaking.

Comment: The Service should have extended or should re-open the public comment period prior to finalization of the regulations to ensure a fully vetted and transparent process as required by NEPA. The 60-day comment period was unreasonably short given the importance of the issue and the magnitude of information provided in the documents.

Response: NEPA does not address the public comment periods required for rulemaking. Whether a comment period is long enough to allow for sufficient opportunity for public input is governed by the Administrative Procedure Act (APA; 5 U.S.C. subchapter II). However, the APA also does not require specific durations for public comment periods or establish a minimum time period for public comment; rather it provides that ''the agency shall give interested persons an opportunity to participate in the rule making through submission of written data, views, or arguments with or without opportunity for oral presentation'' (5 U.S.C. 553(c)). For example, in *Fleming Cos.* v. *U.S. Dept. of Agric.,* 322 F. Supp. 2d 744, 764 (E.D. Tex. 2004), the court held that a 30-day notice and comment period is sufficient. We believe that 60 days was sufficient to allow for public input by interested parties on these regulations, and the quantity and quality of the substantive comments the Service received bear this out.

Comment: Failure to meaningfully consult with Indian tribes on issues affecting their interests can affect the tribes' ability to effectively comment on policy changes. Consultation is still needed to provide the tribes with particularized information about how the rule revisions would affect them and the eagles around their lands. Due to the failure on the part of the Service to consult with tribes prior to proposing the regulations, issuance of the final rule should be delayed until government-to-government consultation is conducted and the tribes have an opportunity to comment following consultation.

Response: In September of 2013, the Service sent all federally recognized tribes throughout the United States a letter inviting them to consult with the Service on development of these regulations. The Service then held meetings with all tribes that requested such meetings. We also held a number of regional informational webinars for tribes. In response to tribal comments on the proposed regulations asking for consultation, we reached out to each tribe that asked and met with them to gather their input and hear their concerns. Individual tribes will also have an opportunity to consult on individual permitted projects that may affect tribal interests.

Comment: We ask that outstanding items that the Service is unable to address in this revision be acknowledged with a firm commitment by the Service to address the problematic elements of the program under a clearly defined schedule.

Response: There are some ''outstanding items'' that the Service is likely to address through future guidance and, where necessary and

appropriate, future rulemakings. Issuing a schedule for when most of these items will be addressed would be an exercise in futility for a number of reasons, including the Service's inability to predict the size of its' future budget and work force, what the priorities under a new Administration might be, and what new information the Service will have that may bear on how we would prioritize the outstanding items to be addressed.

Preservation Standard

Comment: The Service should adopt a stepwise approach to analyzing preservation under the modified preservation standard. A stepwise approach would first look at the LAP. If the LAP is healthy, then a project should be deemed to have satisfied the preservation standard and not be required to undertake compensatory mitigation. If the LAP is stressed or undeterminable, then a project could be required to consider populations at the EMU and/or throughout the geographic range of the species, in that order, to determine if and where mitigation is required. A stepwise approach would help ensure a rational relationship between a project's impacts, if any and the required mitigation to offset for those impacts.

Response: Eagles move over much larger areas than LAPs, and simply looking at the effects of a project at the local area scale would ignore impacts to migratory and dispersing eagles from outside the LAP area. Moreover, it is not feasible to collect eagle population data at the scale of the local population everywhere permits are sought, meaning the kind of analysis described here would be infeasible over much of the United States. Finally, shifting the focus of compensatory mitigation to the LAP will greatly complicate and artificially constrain implementation of mitigation efforts. Given the current challenges with implementing effective mitigation, we will not further constrain options at this time.

Comment: The Service should apply the Eagle Act's preservation standard to only the national and EMU levels for each eagle species. As long as the national and EMU populations stay stable or increase, which they currently are in the absence of [programmatic] eagle permits being issued, the Service's goals for eagles have been met and there should be no need to look at a smaller geographical area.

Response: The Service's goals would not be met by allowing local eagle populations to significantly decline or disappear. There is no reason to believe that Congress's intent in enacting the Eagle Act and including the preservation standard was to preserve bald eagles only in pockets of their range. Moreover, current data, as presented in the Status Report, indicate that golden eagle populations at the national and EMU levels are likely not currently stable or increasing.

Comment: Before proceeding with a take permit process using EMUs, the Service should strengthen the biological foundation of eagle demographic organization as a basis for assessing wind energy impacts, or take another approach altogether.

Response: There is already an eagle take permitting process in place that has used both the LAP and EMU-based analyses, as described in the final environmental assessment conducted for that rulemaking action and the 2013 Eagle Conservation Plan Guidance. The proposal to shift to use of Flyways rather than Bird Conservation Regions (BCRs) for EMUs (background for which is provided in the Status Report) is based on our experience implementing the 2009 eagle regulations. Data collected under incidental take permits will allow the Service and partners to better assess the performance of the Flyway EMUs in capturing connectivity of eagle-use areas from a risk management perspective, or to determine if another configuration would be preferable.

Comment: We are concerned that the preservation standard will result in the mere persistence of the two species without accounting for demographic sustainability. The mere presence of birds alone may not be ecologically sustainable unless there is a demographic preservation standard, the lack of which will potentially create population sinks. It is not apparent within the population models how the cumulative take of eagles affects their demographic preservation. The definition of ''persist'' is ''stable with 2009 as the baseline.'' We think there is room for misinterpretation of this definition. Persistence is related to local populations, and, thus, it may be difficult to link persistence to the 2009 baseline, given that this baseline was calculated at a different spatial scale (*i.e.,* not at the level of local populations). We request further assessment or a better explanation that clarifies how this concept would apply at local populations.

Response: The Service's population objective is to maintain stable or increasing populations of both species of eagle at the EMU-scale, while at the same time ensuring the persistence of local populations. It is the EMU component of the objective that has been analyzed demographically and determined to be consistent with maintaining viable populations; we show in the Status Report that take at the maximum level allowed at the LAP-scale will have negative effects on local populations, though our analysis suggests local populations should still persist. Taken together, the two-tiered population objective means that across an EMU, we might well have areas where eagle take is high and local populations decline to lower equilibriums, whereas elsewhere in the EMU eagle populations are not affected substantially by authorized take to the same degree (or are increasing as a result of the application of compensatory mitigation), such that across the whole of the EMU the population, on average, is stable or increasing.

Comment: The preservation standard proposed for two species not listed under the ESA generally exceeds federal ESA standards. There was an expectation that the Service would revise the preservation standard used for the two eagles as the standard provides greater protection than is required and contributes to a number of management actions (calibrating population estimates, estimating take, monitoring efforts) that detract from management needs related to numerous other species for which there are legitimate and often urgent conservation concerns.

Response: The Service is charged with upholding the Eagle Act by protecting and conserving the two species it covers. In the case of bald eagles, we recognize that there are many other species experiencing significantly greater threats to their populations. However, the Eagle Act requires that we allocate resources to protect bald eagles consistent with congressional purpose stated in the enacting clause of the 1940 Eagle Protection Act: ''by tradition and custom during the life of this Nation, the bald eagle is no longer a mere bird of biological interest but a symbol of the American ideals of freedom.'' And, of course, bald eagles, as well as golden eagles, have special cultural significance to Native American tribes.

Golden eagle populations appear to be well below what their carrying capacity would be were it not for high levels of anthropogenic mortality. We acknowledge that attempting to maintain current numbers of golden eagles is in part a policy choice: The Service could have chosen any reasonable interpretation of Congressional intent, as long as it was consistent with the statutory language and the legislative history behind it. For

example, we could have argued that the preservation standard allows for golden eagle populations to further decline to some new lower level and then preserve golden eagles at that lower population level. We also could have argued that recovery to a much higher population is warranted. However, the policy choice we made is based on what we consider, in our best scientific judgment, to be the most appropriate interpretation of the preservation standard and the overall statutory mandate to conserve and protect both eagle species, which factors in science, legislative history, and the value of golden eagles culturally, symbolically, and ecologically. We considered all these factors in defining ''preservation'' under the Eagle Act so as to protect the golden eagle populations that we have. In short, we believe that is our responsibility and our mandate.

This legislative mandate to protect eagles under the Eagle Act is separate and apart from our mandate to conserve, protect, and recover species under the Endangered Species Act. The purposes and policy goals of both statutes overlap to some extent, but are also different in many ways. As such, it is not appropriate to create parallel species conservation, protection, and recovery standards under each statute or to establish an equivalent standard under the Eagle Act that provides less protection than the Endangered Species Act. Instead, our regulations under each statute protect covered species in different ways, consistent with legislative intent.

Comment: The proposed rule inaccurately cites the current definition of the preservation standard as ''consistent with the goal of maintaining stable or increasing breeding populations'' (81 FR 27934, May 6, 2016, p. 27937). But the 2009 rule expressly rejected use of the word ''maintaining,'' which was in the proposed rule, explaining that it could be misapplied to constrain any authorization of take because any take of a bald or golden eagle by some degree results in a population decrease, even if short-term and inconsequential for the long-term preservation of the species. Thus, the word ''maintaining'' would render the Service unable to authorize any take (74 FR 46836, September 11, 2009, pp. 74 FR 46838–46839). Now, the Service proposes to revive the very same word it found would improperly restrict issuance of take permits in 2009.

Response: We appreciate this comment, which is accurate. The wording in the 2009 regulations did not contain the word ''maintaining,'' and we are correcting it with reference to the 2009 regulations While we concede that ''maintaining'' could be misinterpreted as noted in the preamble to 2009 regulations, we have built enough of a record by now that our intent should be clear: That the goal is to maintain populations over the long term. For the definition we are codifying in this final rule, we are retaining the word ''maintaining'' because it serves a constructive role in relating the two goals of the revised definition together.

Comment: The addition of the term ''persistence'' to the preservation standard is confusing, as it adds another layer of definitions, with the Service stating that ''persist'' is defined as ''stable with 2009 as a baseline.'' At worst, this seems to decrease the current standard and at best, it adds unneeded complexity and confusion. We recommend that the preservation standard keep ''stable or increasing'' as the standard for both EMUs and LAPs, by deleting ''persistence of'' in the proposed definition. The revised preservation standard would read, ''consistent with the goals of maintaining stable or increasing breeding populations in all eagle management units and local populations throughout the geographic range of both species.''

Response: We have clarified in the preamble discussion of the preservation standard that we intend the 2009 baseline to apply to regional EMU populations, but not local populations. For one, the LAP analysis requirement helps us ensure the persistence of local populations, but does not measure a fixed local population. The LAP analysis calculates the authorized take within the area of an activity that may take eagles, and uses the average density of eagles in the EMU as an estimate of the number of eagles within a certain distance of the project. Therefore, there are no specific local populations that we could track as increasing or decreasing, even if we had the capacity to obtain data at that fine a scale, which we do not. Because there would be no means of measuring whether theoretically discrete local populations were stable, decreasing, or increasing, we are not adopting the commenter's suggested modification of the standard. Retaining ''persistence'' in the definition helps to clarify our intent in that regard.

Comment: The inclusion of a management goal for populations on a more localized scale is appropriate. However, the Service should use consistent terms when referring to this scale by using the term local area population (LAP) in the preservation standard: ''. . . in all eagle management units and persistence of LAPs throughout the geographic range of both species.''

Response: We appreciate the intent behind this recommendation, but a ''LAP'' is not a discrete population, but rather a calculation of the number of eagles within the area of a given project or activity, specifically, the number of eagles estimated to be within the area bounded by the natal dispersal distance for the respective species. See our response to the previous comment for more explanation.

Comment: Despite extensive discussion of management objectives in the preamble to the proposed rule, it is unclear how the Service intends to establish its take ''baseline,'' from which permissible future take in any given EMU will be calculated. The Service fails to provide a defensible rationale for establishing a take baseline based on eagle populations as they existed in 2009, or any other point in history.

Response: The approach used by the Service to establish the baseline and subsequent take limits is covered extensively in the first 35 pages of the Status Report and in the chapters of the programmatic environmental impact statement (PEIS) on bald and golden eagles. Please refer to these documents.

With respect to the assertion that the Service failed to provide a rationale for its population objective, we disagree and point out that the current management objective is directly derived from and consistent with the determination made with the adoption of the initial nonpurposeful take permit regulations in 2009. We do not doubt that continental populations of both species were at times larger or smaller than they are today, but that is not a compelling reason to set a different and likely unattainable population objective. The Status Report indicates there is a high probability that meeting the objectives the Service proposed for both species will ensure healthy populations at the EMU level for the foreseeable future. Moreover, the commitment to collect and consider new population information regularly as part of the adaptive management process ensures that there will be opportunities to adjust the objectives, take rates, and take limits on a recurring basis.

Comment: In the proposed rule, there is no consideration of age and sex of eagles taken under incidental take permits, nor is there regard for the time of year when the impacts will occur or of the status of the population affected. There is no consideration of carrying capacity or of how the loss of specific individuals might have affected other eagles. The proposed rule largely

ignores the context in which the impacts of incidental take will occur.

Response: The Service agrees with this commenter that the population status, age, and (in some circumstances) the sex of eagles killed matters in terms of the scale of population impact; however, we disagree that we have ignored these factors in setting up the permitting program. With regard to spatial variation in status, the Service examined existing demographic data for regional differences in vital rates, and established EMUs and population estimates for EMUs accordingly. With regard to other factors, how or whether the probability of take under various activities varies according to eagle age and sex has not been quantified broadly for either species of eagle. Thus, the Service's models assume that take under incidental take permits will be in proportion to the abundance of exposed age classes and sexes. The Service has established a policy to determine the age and sex of eagles taken under permits, and over time as part of the adaptive management process, and as this information accrues we will evaluate whether risk is disproportionate for any of these groups across the various activities that incidentally take eagles. The Eagle Conservation Plan Guidance (ECPG; U. S. Fish and Wildlife Service 2013) identifies age, in particular, as a factor the Service suspects influences collision risk at wind facilities. The implications of the data collected on the age and sex of eagles taken under permits will be considered by the Service in future updates to the Status Report, and, if warranted, these assessments could lead to other changes in the permit program.

Comment: Proposed § 22.3 articulates the preservation standard as ''consistent with the goals of maintaining stable or increasing breeding populations in all eagle management units and persistence of local populations throughout the geographic range of both [eagle] species.'' It is unclear what ''persistence of local populations'' means, and the basis for including local management in a standard intended to manage the take of eagles at a national level is puzzling. At a minimum, the preservation standard articulates a management scale that is internally contradictory.

Response: With respect to the relevancy of the LAP scale of eagle management, recent data from satellite tracking studies show that while both bald and golden eagles range widely, there is high philopatry (the tendency of an organism to stay in or return to a particular area) to natal, wintering, and migration stopover areas. Thus, local impacts can have far-reaching effects on eagle populations. Local populations of eagles also are of great cultural and social importance. The Service received many comments from states, tribes, local governments, and environmental organizations in support of including the persistence of local eagle populations in the management objective for eagles. The Service disagrees that including this scale of management is contradictory. The LAP population size estimate is based on the eagle densities estimates in the surrounding region, and those density estimates are biologically based and derived from actual eagle count data at the finest scale available. As to the LAP area, it is based on the natal dispersal distance of each eagle species, and as such represents the most applicable area over which the effect of an individual incidental take permit should be measured. The Service believes that preservation of local eagle populations accomplishes both important biological and cultural objectives, and that the EMU-scale analysis alone is not sufficient to evaluate and account for local and cumulative effects of an incidental eagle take permit.

Comment: Congress intended the Secretary to treat take authorized for scientific and religious purposes differently than take authorized for the protection of wildlife or agricultural or ''other'' purposes. Specifically, while Congress expressly conditioned the Secretary's ability to authorize scientific/religious take to take that is ''compatible with the preservation of the species,'' Congress's subsequent text imposes no similar condition on the Secretary's ability to authorize take for the protection of wildlife, agricultural, or ''other'' interests, except that such take is ''necessary'' to protect the interest at issue. Accordingly, Congress did not intend to limit the Secretary's ability to issue permits for non-scientific, non-religious take only to situations where doing so would be ''compatible with the preservation of the species.'' This conclusion is supported by the legislative history of the Eagle Act, which nowhere suggests that each take authorized for agricultural or ''other'' interests should be conditioned on compatibility with the preservation of the species. To the contrary, one of the express purposes of amending the Eagle Act in 1960 was to provide the Secretary with the authority necessary to issue eagle take permits to accommodate overriding local or commercial interests (see, *e.g.,* Senate Report No. 87–1986, at 85,007–008, 85,011, 85,013 (1960) (explaining Congressional intent to carve out an exception from the preservation standard where necessary to protect important commercial interests); House Report No. 87–1450, at 72,007, 72,010–011 (same)). Because the Service proposes to condition all eagle take on the preservation standard that Congress intended to apply only to scientific and religious take, the proposal is inconsistent with law and vulnerable under the APA.

Response: The legislative history does not support the commenter's position. The referenced Senate Report states that ''it is expected that thus the conservation purposes of the bill will be preserved, while at the same time any potential economic hardship to limited areas can be obviated.'' Although the Committee was referring to the proposed new authority to allow a state Governor to request a depredation control order, this language supports interpreting the preservation standard to apply to the whole of 16 U.S.C. 668a, or at least to a clause other than the religious and scientific or exhibition purposes clause. The testimony also refers to both religious take and control to protect agricultural interests. In neither context does the testimony reference the preservation standard as limiting that authorization, and as such it provides no indication Congress intended that the two exceptions be treated differently. As noted by the commenter, the House Report is similar.

The crux of the issue is that the statutory language authorizes the Secretary to permit the take of eagles for the protection of ''other interests in any particular locality''; it does not provide a blanket exception to the take prohibition or the Eagle Act's civil or criminal penalties for those interests. This means the Secretary has discretion to apply reasonable conditions to that authorization. Thus, even if the commenter were correct that the preservation standard does not apply on the face of the statute, the Secretary may place restrictions on take necessary to protect the species consistent with the purposes of the statute (which references a preservation standard in at least some contexts).

Comment: The Service's population management objectives should be focused on the continued growth of all eagle populations in every extent of their current and historical geographic ranges, and any management strategy should support this tenet or be amended to meet that objective.

Comment: The preservation standard should be re-phrased to make the goal of this permitting program to increase eagle populations. The Service should clarify that the relatively arbitrary 2009

baseline represents a minimum ''floor'' for population management. This floor does not represent the Service's aspirational goal but rather a threshold that will trigger additional action should populations fall below it. To this end, we recommend that the Service rephrase the preservation standard under 50 CFR 22.3 as follows: ''Consistent with the goals of increasing breeding populations, or at a minimum maintain stable breeding populations.''

Response: We are confident that the management approach we are adopting will allow bald eagle populations to continue to grow for some time in most EMUs. As we describe in the Status Report, we expect bald eagle numbers to eventually stabilize at approximately 228,000 eagles by about 2030. We believe that maintaining current numbers of golden eagles is a worthy and achievable goal for the near term. It is our hope that our management approach may also provide for eventual, modest growth in golden eagle populations to better approximate what carrying capacity would be in the absence of high levels of human-caused sources of mortality. The 1.2 to 1 compensatory mitigation ratio and the reduction of unauthorized take as it comes under the permit requirements to avoid and minimize impacts to eagles are the primary regulatory mechanisms by which these regulations could provide that outcome in the long term.

As the second commenter states, the 2009 baseline does indeed represent a minimum ''floor'' for population management. It is not the Service's aspirational goal. It is a threshold below which our management goal for eagles would not be met. With regard to the specific recommendation that the standard should read ''consistent with the goals of increasing breeding populations, or at a minimum maintain stable breeding populations . . . ,'' we do not agree that it would be good public policy to stipulate a goal of increasing a species' population size without also being specific as to why, by how much, and where, all factors for which the Service lacks any specific objective criteria. The Status Report indicates there is a high probability that meeting the objectives the Service proposed for both species will ensure healthy populations at the EMU level for the foreseeable future. As noted above, we believe bald eagle populations will continue to increase despite some additional authorized take. At present, the Service has not been presented with evidence that suggests stable populations of golden eagles would not satisfy both reasonable biological and societal needs.

Comment: The Service proposes to add the clause ''and the persistence of local populations, throughout the geographic range of both species'' to the definition of the preservation standard. This contradicts and undermines the assumptions of the Service's biological opinions issued in support of habitat conservation plans (HCPs) and ESA incidental take permits that cover golden eagles. In approving those HCPs, the Service issued multiple biological opinions concluding that local populations of golden eagles were not critical for the long-term survival of the species.

Response: The ESA and the Eagle Act have different conservation standards and purposes. While the ESA has as its bottom line that permitted take must not more than negligibly contribute to the extirpation of a species, the Service interprets the Eagle Act's preservation standard, even prior to the amendments to our regulations being made by this final rule, as intended to maintain sustainable population levels throughout the range of each species. We note that at the time that the HCPs and ESA take permits covering golden eagles were developed, the permits conferred no authorization to take golden eagles under the Eagle Act, but rather included statements that the Service would exercise its enforcement discretion so long as the permittees remained in compliance with the incidental take permits' terms and conditions specific to eagles. Since then, because of revisions we made to our regulations in 2008, ESA incidental take permits that cover eagles, if conditioned in accordance with Eagle Act standards, also convey take authorization under the Eagle Act. In that regulation, we stated the following with respect to existing incidental take permits that included golden eagles as a covered species: ''The statutory and regulatory criteria for issuing those ESA authorizations included minimization, mitigation, or other conservation measures that also satisfied the statutory mandate under [the] Eagle Act that authorized take must be compatible with the preservation of the bald or golden eagle.'' 73 FR 29,075 (May 20, 2008). This means the existing ESA golden eagle incidental take permits are ''grandfathered'' by the 2008 regulation revision and as such are not contradicted or undermined by these final regulations.

Avoidance and Minimization

Comment: The proposed removal of the ''unavoidable standard'' and replacement with a standard of practicability is too lenient and leaves unacceptable room for subjective interpretation.

Response: The Service views the requirement that programmatic permittees reduce take to the point where any take that occurs is completely unavoidable as just as subjective in practice as a standard requiring reduction of take to the maximum degree practicable. In addition, the practicability standard is clearer, more reasonable, and realistic.

Comment: The Service should provide more details regarding how the various considerations in the definition of ''practicable'' will be accounted for, weighted, and implemented in an objective manner.

Response: The Service's definition of ''practicable'' in this rule mirrors the definition of that term in Service mitigation policy, as well as other federal agency mitigation policies and regulations. The Service also intends to implement the consideration of practicability with regard to mitigation measures in a manner consistent with these mitigation policies and regulations. The consideration of what is practicable is complex and context-dependent and is described in more detail in the preamble to this rulemaking above. Further details about how practicable considerations are implemented may be detailed in future guidance.

Comment: Under the proposed rule, the Service may require additional avoidance and minimization measures if such measures are likely to reduce take and are practicable for the permittee to implement. The Service should not impose such measures on projects unless outlined in the permit conditions, or if take has exceeded anticipated levels. Instead, the Service should include a ''No Surprises'' concept in the final rule that would protect permittees from unforeseen circumstances beyond a permittee's control.

Response: We modified the language covering 5-year reviews for this final rule such that additional conservation measures to be implemented based on the review will be limited to those described in the adaptive management plan for the permit, unless the take exceeds the authorized take levels or the permittee is otherwise out of compliance with the permit conditions. The final rule also includes the following language: ''However, with consent of the permittee, the Service may make additional changes to a permit, including additional or modified appropriate and practicable avoidance and/or minimization measures shown to be effective in

reducing risk to eagles'' (50 CFR 22.26(c)(7)(iv)(D)).

Comment: It is inappropriate to consider cost in the definition of ''practicable.'' The Service has the legal authority to require permittees who take eagles to comply with the best available scientifically defensible measures to limit take regardless of cost.

Response: The previous definition of practicable included considering cost, as do most definitions of the term in federal policy. If an applicant cannot afford a mitigation measure, or if the cost of a mitigation measure renders a commercial project financially infeasible, then the mitigation measure is not capable of being done by that applicant, and is not practicable. However, the burden of proof is on the applicant to demonstrate a mitigation measure is not practicable.

Comment: The Service proposes to revise the definition of the term ''practicable.'' However, the new definition seems to provide ample room for debate and interpretation with project proponents. The Service should define mechanisms to ensure that projects meet this definition and that proponents truly are avoiding take to the greatest extent practicable.

Response: We hope to develop future guidance to ensure a consistent, objective approach is taken when evaluating the practicability of mitigation measures. In any case, the previous definition of the term practicable has already provided plenty of room for debate and interpretation. We do not expect our new definition to change that dynamic and that was not our intent.

Comment: The Service's proposed definition of practicable is inconsistent with the Service's obligation and authority to permit eagle take only when it is ''compatible with the preservation of the bald eagle or the golden eagle.''

Response: Both standards apply. If there are no practicable measures or compensatory mitigation actions that a project proponent can undertake to ensure compatibility with the preservation of eagles, the Service will not issue an incidental eagle take permit.

Comment: The Service should add ''project economics and location'' to the definition of ''practicable'' at proposed 50 CFR 22.3 to harmonize the language of the regulations with the intended purpose to establish a workable ''practicability'' standard.

Response: We do not agree that the addition of ''project economics and location'' is appropriate. Project economics implies that permits are always issued for commercial activities, but many eagle incidental take permits are issued to homeowners and government agencies. The addition of location is not appropriate because whether a project can be sited elsewhere may be part of the consideration of what is practicable.

Comment: Courts have noted that the Service's definition of practicable ''looks to whether the mitigation is rationally related to the level of take under the plan.'' Key language from the existing regulations recognized this rational relationship requirement: ''Practicable means capable of being done after taking into consideration, relative to the magnitude of the impacts to eagles, the following three things: The cost of remedy compared to proponent resources; existing technology; and logistics in light of overall project purposes.'' The Service should ensure that this rational relationship requirement carries over into the new definition of practicable.

Response: We agree that the determination of what is practicable must include consideration of the magnitude of the impacts of the activity on eagles. The regulations capture this consideration at 50 CFR 22.26(e)(5) addressing the factors the Service must consider in determining whether to issue a permit, which reads: ''Whether the applicant has proposed all avoidance and minimization measures to reduce the take to the maximum degree practicable relative to the magnitude of the impacts to eagles.''

Comment: In the final rule, the Service should provide a more detailed description of elements of an adaptive management program suitable for protection of eagles, to include: Details on the process for development of the plan; opportunities for regulated entities to participate in discussions about adding or removing mitigation measures; mitigation measures that the Service identifies as suitable for the objective of reduced eagle disturbance or mortality; and at 5-year reviews, the process for determining which mitigation measures will be included for a subsequent 5-year period.

Response: The elements cited by the commenter as needing more detailed description (*e.g.,* suitable mitigation measures, the process for determining when mitigation measures will be applied) will vary significantly depending on the type of activity that is being permitted and how it affects eagles. For example, mitigation measures and the trigger points for implementing them are likely to be very different for mining operations versus wind energy facilities. The ECPG contains a detailed description of the process the Service is using for adaptive management under incidental take permits at wind facilities, and we refer this commenter to that document for an example of how adaptive management will be implemented under permits for wind energy facilities.

Comment: The Service has apparently not heeded any of the elements of the precautionary principle or the advice of the National Research Council when making decisions about rare or precious resources in the face of high uncertainty.

Response: The entire eagle incidental take program has been built around explicitly accounting for uncertainty and then being clear about how that uncertainty is addressed in decisions. Adaptive management is a process of adaptive learning, whereby: (1) Predictions are made regarding anticipated effects of an activity; (2) data regarding the outcomes of the activity are collected; (3) the predictions are updated to reflect the actual outcomes of the activity; and (4) the updated predictions are used to change the activity, either in the future at the same site or at other places where the same activity is being contemplated. The Service has described its adaptive management framework for eagle incidental take permits in the ECPG (Appendix A), and in the preamble to this final rule. The overall framework is intended to account for, and over time to reduce, uncertainty in the effects of wind facility siting, design, and operations on eagles. More broadly than for just wind energy, the adaptive management process is also intended to address uncertainty in compensatory mitigation and the effects of established take rates on eagles. This uncertainty is reduced over time by using information collect on the actual outcomes of the activity to update the predictive models used initially to estimate those effects; over time, the accuracy and precision of the predictive models is improved through these updates. We describe how the risk posed by uncertainty is addressed in the response to other comments, but we reiterate here that in all cases the Service has adopted approaches that are protective of eagles.

Comment: Permittees should also be required to conduct research and analysis to test methods to reduce lethal take during their permit life. There should be an expectation that all projects will be required to reduce their lethal takes over time.

Response: The adaptive management framework outlined by the Service includes a requirement that permittees monitor eagle take and, on a case-by-case basis, other factors associated with

that take under their permits. The Service will use this information as part of the adaptive management process outlined in the ECPG to determine or add to existing knowledge of factors associated with eagle mortality under different activities and to evaluate the effectiveness of different avoidance and minimization measures. Through monitoring, 5-year reviews, and the adaptive management process, our goal is to reduce take over time.

Comment: A coordinated research program should be instituted to develop new and effective mitigation measures for wind energy facilities.

Response: We agree additional research would benefit eagle conservation and the Service's permitting program. The permit program is designed to collect relevant data that can be used to evaluate the effectiveness of minimization, avoidance, and mitigation measures. This adaptive management approach allows for the incorporation of new information and practices over time. This approach is described in detail for eagle take permits for wind facilities in the ECPG.

Comment: The Service should retain the requirement for applying advance conservation measures (ACPs) to mitigate eagle take. Experimental ACPs are appropriate where established ACPs are not available.

Response: The Service eliminated ACPs from the regulations due to confusion about the standards by which ACPs were to be developed and what it means to reduce take to the point where it is unavoidable. We believe the new language is more consistent with Service policy and is clearer. Applicants must still implement all practicable avoidance and minimization strategies for their activities, and, conditioned on terms and conditions set in the initial permit, testing of experimental measures to reduce eagle take as, for example, described for wind energy facilities in the ECPG as part of the adaptive management process.

Comment: Application of minimization strategies should be on a project-by-project basis to determine whether the measure is practicable for that project.

Response: All practicable avoidance and minimization measures demonstrated to reduce take levels will be required. There are many considerations in determining whether mitigation measures are practicable for a particular project, including the magnitude of the impact to eagles. For example, if a project poses a relatively low risk of eagle take, imposing expensive monitoring and curtailment measures is not commensurate with the risk, whereas this strategy may be appropriate at a high risk site.

Duration and 5-Year Reviews

Comment: The proposed change from 5-year permits to 30-year permits has the potential to decrease golden eagle population numbers in the Southwest, making it more difficult for tribes who rely on the ceremonial and religious take of golden eagles (as they have for centuries), to secure their own permits for take under the Eagle Act. Even with the prioritization given to tribal take permits, a tribe's ability to engage in longstanding religious and traditional take of golden eagles may nevertheless be constrained if golden eagles are so impacted by wind energy on a local or regional basis as to become unavailable for this purpose.

Response: The regulations are designed not only to protect eagles but, in the case of golden eagles, to improve their condition. The management approach we are adopting through this rulemaking is risk-averse with respect to estimating impacts on eagles. Population sizes, sustainable take rates, and, for wind facility permits, eagle fatality estimates for individual projects are all based on scientifically peer-reviewed models that are designed to provide data that allow the Service to explicitly select the level of risk with respect to being more versus less protective of eagles. For each aspect of the management and permitting process, we are using values for decision-making that shift the risk in an 80:20 ratio towards being protective of eagles. Thus, the actual eagle population size in each EMU and the true sustainable take rate are both highly likely (80% likely) to be larger than the values used by the Service, so that when they are multiplied together to get the take limit, that value is even more unlikely to exceed the actual sustainable take limit for the EMU. Similarly, the eagle fatality estimates for individual wind projects are unlikely to underestimate the actual take rates, and as a result, authorized take over all wind projects is very unlikely to exceed the EMU take limits. While improvements in the precision of all of these estimates through adaptive management should decrease uncertainty and thus shrink the magnitude of the difference between the expected fatality rate and the permitted take limit over time, as a matter of policy, the difference will always be in favor of protection of eagles. Furthermore, all golden eagle take authorized under this permit regulation will require compensatory mitigation at a 1.2 to 1 ratio, meaning that for every five incidental takes of golden eagles, six golden eagles will be protected that otherwise would have been lost.

Comment: The final rule should clarify that its increased take limits and permit durations apply to all industries. The Service should clarify that permits will be issued to all applicants on an equal basis and that the number of eagle takes authorized and the term of the permit will not depend on the applicant's industry.

Response: The increased take limits apply equally to all industry types. The increased permit duration also applies to all types of entities. We will issue permits to all applicants on an equal basis. The number of eagle takes authorized and the term of the permit will depend on the specifics of the individual project and not the applicant's industry.

Comment: While the short duration may be a deterrent to industries to applying for permits and participating in a regulation scheme, a 600% increase in duration is too large of a leap. The Service should consider a 15-year initial permit duration, with a renewal option every 5 years. This approach balances the need for a longer, more realistic permitting procedure with the need to closely regulate the potential for loss of life and nests of these eagles, which remain protected species.

Comment: Given the rapid changes due to climate change in the region, especially related to water regimens and their impact on habitat and eagle prey populations, it would seem prudent to limit the maximum permit duration to 5 years in order to more rapidly respond to changes in local eagle populations and productivity wrought by climate change. A more conservative, shorter-duration permit than 30 years provides opportunities for real-time incorporation of rapidly evolving scientific knowledge, especially regarding population estimates, take thresholds and caps, and evaluation of unforeseen impacts and changes in the population dynamics of eagles.

Comment: The rule should be clear that permit duration will be tiered to certainty of risk and expected impacts to eagles, both of which remain extremely uncertain.

Response: These final regulations establish a maximum permit duration of 30 years. Permits valid for longer than 5 years can be of any duration between 5 years and 30 years. The Service will consider the degree of uncertainty as to the effects of the permitted activity, site-specific factors, and other information to determine appropriate durations for individual permits.

Comment: The 5-year reviews of long-term permits are unnecessary, especially for projects for which the adaptive management strategy can respond to actual events. Every project that receives a permit under this rule will provide annual reports to the Service, providing the Service the opportunity to regularly review the specific eagle mortality, avoidance, minimization, adaptive management, and mitigation measures addressed in a permit. Formal review periods short of the permit term would invalidate the protections and intent of the 30-year permit.

Comment: While the 5-year review periods are appropriate, they would not be necessary for all projects, particularly if a fatality prediction is low. Any in-depth review should be reserved for extreme cases where data prove continued operation under current permit conditions would result in population-level impacts.

Comment: A wind project 20- to 30-year eagle permit with substantive reviews every 5 years is very difficult to finance and operate commercially. Opening up the eagle permit for substantive reviews every 5 years is a significant financial uncertainty, burdensome to already overly committed Service staff, and a cost for applicants that presents a significant disincentive to seek a permit.

Response: The 5-year review is a reasonable and justified provision that appropriately balances the Service's responsibility to ensure the preservation of bald and golden eagles, while also creating benefits to industries seeking long-term permits. In response to the comment that the reviews are unnecessary, particularly for projects for which the adaptive management strategy can respond to actual events, the 5-year review is the mechanism by which we determine whether the adaptive management strategy is able to respond to actual events. Annual reports are important, but eagle presence and exposure to permitted activities varies from year to year, such that it would be imprudent (not to mention impractical) for the Service to react annually to those variable events.

We anticipate that the 5-year reviews will typically benefit permittees because, under the conservative management approach we are taking, the authorized take will usually be higher than the actual take. For golden eagles, this means that excess compensatory mitigation can be credited to the permittee at that point and the excess ''rolled'' into the next 5-year period. Without the 5-year review, most long-term permittees will contribute more compensatory mitigation than is needed to meet the compensatory mitigation ratio of 1.2 to 1. The typically lower take rate will also mean the Service can adjust the authorized take to a lower amount for permits for both species of eagles, and adjust debits to the EMU and LAP take limits appropriately. Additionally, the 5-year review may demonstrate that some conservation measures or other permit conditions may not be effective or necessary, allowing the Service to reduce or eliminate those requirements.

Even for permits with low fatality predictions, we believe it would be remiss not to review whether eagle take is within the authorized level, and whether there are elements of the adaptive management strategy that should be implemented. That a long-term permit with substantive reviews every 5 years might in some cases be ''very difficult to finance and operate commercially'' is a factor that project proponents will need to consider when siting projects in eagle habitat.

In response to concerns that shorter-term permits are necessary to protect eagles from effects of climate change or other factors that could affect eagle populations, we agree that under the most ideal circumstances for eagles, owners and operators of projects in eagle habitat could be persuaded or, if necessary, be required to revisit and modify any aspect of their operations to benefit eagles. That ideal is simply not realistic, whether the activity is permitted under a 5-, 10-, or 30-year permit. For good or for worse, much of the physical infrastructure that humans establish on the landscape is semi-permanent in nature, and projects are as unlikely to be significantly altered at the end of a 5-year eagle take permit term as they are at the 5-year point of a 30-year permit. The situation up until the time of this final rule being issued is that the Service has issued only four permits for ongoing take that may occur over decades. We expect many more projects to seek permits with longer durations because the longer duration is the single biggest change project proponents and operators have attested they need for this permit program to be workable for longer-term activities. Compared to a scenario where activities that take eagles do so with little to no avoidance and minimization measures to protect eagles, and no compensatory mitigation, we anticipate that long-term permits with adaptive management strategies and 5-year reviews will be beneficial to eagle populations.

Comment: It may be justifiable for projects that exceed the take authorization specified in the permit to be required to implement additional measures and seek a permit amendment. However, the permit cannot be re-opened for reasons unrelated to the project or outside the permittee's control. These reasons may include unanticipated detrimental changes in the status of the local population due to factors such as non-permitted take (*e.g.,* shooting, poisoning); disease; or shifting/declining ranges due to climate change, fire, or other environmental factors. The rule must be clear that permittees would not be responsible for implementing additional mitigation or minimization measures due to these circumstances. At a minimum, the rule should establish long-term adaptive management cost caps that can be relied on to ensure project viability.

Comment: Given that eagle populations can change significantly over 30 years, the final rule should detail an adaptive management approach that ensures the Service retains the ability to reduce take if eagle populations are negatively influenced during the life of the permit.

Comment: The final rule should incorporate clarifying language indicating that the Service retains the ability to revoke a permit for continued excessive take, and it should more clearly define a process by which permits may be revoked.

Response: This final rule incorporates modified language to address the adaptive management provisions and the types of actions the Service may take in 5-year reviews. Specifically, more emphasis will be placed on building in a robust suite of adaptive management measures upfront in the permit. If a permittee is in compliance with permit terms and the authorized take under the permit is not exceeded, no other actions will be required. With consent of the permittee, the Service may make additional changes to a permit, including additional or modified, appropriate and practicable avoidance and/or minimization measures that are likely to reduce risk to eagles. If the permittee agrees to undertake such additional measures, appropriate adjustments will be made in fatality predictions, take estimates, and compensatory mitigation.

If authorized take is exceeded, that will generally trigger modifications by the Service. However, whether modifications to permit terms are required will depend on the circumstances. Because the Service will set take authorizations conservatively, we expect actual take to be lower than what was authorized 80% of the time and higher than what was authorized only 20% of the time, at least during the first 5 years, prior to predicted take

being adjusted based on the observed levels of take in the first 5 years. Because 20% of permitted projects are expected to exceed the authorized take levels, the appropriate response when that occurs depends on the circumstances, including how much actual take exceeded authorized take, and what other factors, if any, may have affected the take level.

Permit revocation criteria that apply to all Service permits are found at 50 CFR 13.28. Section 13.28(a)(5) provides that a permit may be revoked if ''the population(s) of the wildlife or plant that is the subject of the permit declines to the extent that continuation of the permitted activity would be detrimental to maintenance or recovery of the affected population.'' Prior to any permit revocation under such conditions, the Service is likely to request that the permittee adopt additional measures to avoid and minimize take of eagles rather than be subject to permit revocation.

Comment: The idea of a periodic review of a permit for effectiveness has merit, but is a 5-year period for the 30-year permit the best timeframe? If in the first year or two the actual documented take significantly exceeds the predicted take, should action not be initiated sooner? Or, if actual take is at predicted levels, or lower than predicted, would that create the basis for the permit to move to a 10-year mandatory review period? The use of an arbitrary timeframe versus actual impacts as the trigger for a review raises questions.

Comment: If the final rule retains the provision for long-term permits, they should be evaluated at shorter intervals than 5 years. Permits should be automatically reviewed if the number of take exceeds the average annual ''take'' (*e.g.,* a 3-year permit that allots a total take of 10 ''units'' should be reviewed if there are more than 4 ''units'' of take in that year).

Comment: The statement that the Service will evaluate each long-term permit at no more than 5-year intervals presents ambiguity that may result in inconsistent administration of the program. The statement implies that the evaluation interval could be conducted at less than 5 years. If a definitive timeframe cannot be established, the final rule should describe when evaluations would occur at less than a 5-year interval.

Response: The rationale for the 5-year timeframe for the periodic review is as follows. The observed level of take is likely to vary from year to year. For example, in the first 2 years, there may be no take, but in the third year, perhaps due to environmental factors, estimated take (based on observed levels of take using approved protocols for monitoring, searching, and estimating take) is three eagles. If no take occurs in years four and five, then take over the 5-year period totals three eagles, which gives the Service and the permittee a reasonable idea of what the average level of take is likely to be. If it happened that three eagles were taken the first year, but none in the next 4 years, the average would be the same: Three eagles over a 5-year period, but it might have appeared after the first year that annual take would be higher because year one had a much higher level of take than the four subsequent years. For that reason, we are unlikely to revisit the permit terms within the 5-year period unless the level of take exceeds anticipated and authorized take levels for the 5-year period.

Comment: The final rule should describe, at a minimum: (1) The consequences to, and expectations for, the applicant of unexpected take; (2) the specific additional mitigation measures that may be required; and (3) any relevant ''triggers,'' such as when permits will be reviewed.

Response: In general, as noted in our response to the previous comments, the Service will conduct permit reviews for long-term permits every 5 years. As noted above, if authorized take levels for the 5-year period are exceeded, we may need to revisit the permit terms and conditions sooner than in year 5. Individual permits will have different adaptive management measures tailored for the type of activity and site-specific factors spelled out, including when the permittee would need to implement them.

Comment: The Service must adopt a process by which the public and concerned conservation organizations will be routinely involved in the ''internal'' 5-year reviews if a 30-year permit is approved. Otherwise, to adhere to the NEPA provisions for public involvement in the permitting process, the Service will need to continue with a 5-year permitting system.

Response: There is not a requirement under NEPA to involve the public in a permit renewal process or a 5-year review process unless there is a need to supplement the associated NEPA analysis underpinning the original permit decision. Public involvement would be limited to reviewing a draft supplemental EA/EIS and would not be part of Service's regulatory review procedure set out for the permit itself, whether the action is permit renewal for a 5-year permit or a permit evaluation conducted every 5 years. Accordingly, there is no difference in public involvement through NEPA between a 5-year review and a 5-year renewal.

Comment: The internal review process could eliminate or significantly curtail public and state agency participation, input, and oversight after the permit is initially granted. Language should be included in the rule that expressly allows for public/state agency mortality and other data sharing, input, and review at each 5-year interval.

Response: We will coordinate with states and other government agencies (*e.g.,* federal and tribal) that have regulatory oversight over the permitted activity and which could be affected by changes to the federal authorization, when conducting the 5-year reviews. Involving the public would entail public hearings or notice and comment in the **Federal Register**, greatly increasing Service workload and costs, resulting in delays, and generally making the 5-year review unworkable.

Comment: The Service should notify all affected tribes when it is conducting a 5-year review of a permit. Upon notice, affected tribes should be invited to consult or provide input on the permit, including a consideration of whether eagle takes under the permit necessitate permit modification.

Response: The same factors would trigger consultation at 5-year reviews as for the initial permit issuance, *i.e.,* whether the action (permit issuance or 5-year review) may affect particular tribes. If, at the beginning of the 5-year review based on information supplied by the permittee, we determine it is not likely any changes will need to be made to the permit, or that any required changes are unlikely to affect particular tribes, then consultation would not be warranted. There may be unusual circumstances when consultation would be appropriate on a 5-year review for a project when changes may affect tribal interests, even when the activity did not need consultation in the first place when initially permitted.

Comment: The Service should commit to conduct NEPA reviews at the time it considers issuance of an eagle permit, not at additional 5-year intervals over the life of the permit.

Response: Some level of NEPA review (EIS, EA, or categorical exclusion) is always required when a federal agency issues a permit to authorize any otherwise-prohibited activity. We would only need to conduct additional NEPA analysis at the 5-year review stage if the scope or conditions of the authorization substantially change to the point where supplemental NEPA analysis would be required.

Comment: The Service has failed to outline how the results of its 5-year review process will be shared with the public at large or interested tribes or how the review process will trigger additional obligations to engage in informed and meaningful tribal consultation about the project under existing laws and policy, including section 106 of the National Historic Preservation Act (NHPA).

Response: The Service will continue to make mortality information from the annual reports that each permittee is required to submit under § 22.26(c)(3) available to the public. Neither the 5-year review process nor the original permit-issuance process contains a public-notice requirement. Public participation in the initial permit issuance process is currently, and will remain, limited to any NEPA analysis that is required to accompany permit issuance, if appropriate (for example, public participation would be required for an EIS and is discretionary, consistent with Council on Environmental Quality (CEQ) and Department of the Interior (DOI) NEPA regulations, for an EA; see 40 CFR parts 1500–1508 and 43 CFR part 46, respectively). Similarly, public participation in the 5-year-review process will be limited to any NEPA compliance necessary at that time, which would most likely take the form of supplementation of the original NEPA analysis accompanying permit issuance. NHPA compliance is unlikely to be triggered at the 5-year-review stage unless the Service determines it is necessary to supplement the original permit-issuance NEPA analysis. The Service will continue to engage and consult with federally recognized tribes if the 5-year-review process reveals significant changes in the effects of the permitted activity on eagles or leads to any changes to the permit that may affect those tribes.

Comment: A 5-year permit term does not pose any unreasonable hardship to permittees or to the Service. The permittee has the opportunity to renew the permit at the end of the 5-year term, and there is no reason to believe that a permittee who is compliant with applicable law and the permit conditions will be denied renewal. For permittees whose projects are not in compliance with their permit or applicable law, the Service will retain its leverage in ensuring compliance if it has the opportunity to not renew the permit. Once a permit is issued, a permittee will vigorously resist any new measures being imposed on its permit, will argue that additional measures are not worth the cost, and will likely challenge imposition of costly new measures in court rather than complying with them at the outset. At minimum, the permittee will have significantly more (and the Service less) leverage if the Service is in the position of adding new conditions to an existing permit as opposed to a permit renewal context.

Response: We agree that a 5-year permit was not ''an unreasonable hardship'' to permittees and also that there is no reason to believe that a permittee who is compliant with applicable law and the permit conditions will be denied renewal. However, many potential applicants had a different perspective that appears to have dissuaded them from obtaining permit coverage. And, we do not agree with the commenter that we lose leverage under longer-term permits to ensure compliance with permit terms. We also do not agree that long-term permittees are more likely to resist new measures than permittees needing to renew permits for ongoing operations. If anything, long-term permittees would be less likely to resist changes imposed at the 5-year stage because the additional measures will, in many cases, already be part of the adaptive management terms and conditions of long-term permits.

Comment: The Service's commitment to engage in a 5-year review process offers little comfort, since little can be done to avoid any unanticipated level of take of eagles after the facility is developed. The Service's assertion that it will ''always retain the ability to suspend and/or revoke the permit'' (presumably should it find that the activity is not compatible with the preservation of the eagle) is not convincing. Practical, financial, and political constraints will make it virtually impossible for the Service to live up to this assertion.

Response: The statement that ''little can be done to avoid any unanticipated level of take of eagles after the facility is developed'' is not a good argument for a 5-year permit over a permit of longer duration. How would the Service's failure to renew a 5-year permit for a long-term project have greater effect than our ability to continue to work with longer-term permittees to adapt avoidance and minimization measures and ensure appropriate compensatory mitigation is carried out? The statement that practical, financial, and political constraints will make it virtually impossible for the Service to suspend or revoke long-term permits is purely speculative. We acknowledge that suspension and revocation are options of last resort and that we would prefer, and intend, to work with permittees to rectify compliance issues prior to taking those steps. Such an approach is not less protective of eagles.

Comment: The proposal to extend permit terms to 30 years fails to recognize that subsequent administrations of federal or state governments might pass new laws or regulations within the next 30 years that strengthen protections applicable to eagles or wildlife. In such case, permittees will likely try to resist compliance with new protections by arguing that they have ''grandfathered'' rights under their permits.

Response: We cannot predict future laws or regulations that may strengthen (or reduce) protections for bald and golden eagles, and we do not have the resources to monitor every new change in laws and regulations at the state, tribal, and local level. We will continue to rely on our working relationships with state, tribal, and local wildlife agencies to coordinate management and protection of bald and golden eagle populations. We do not enforce or interpret non-federal laws and will continue to rely on state, tribal, and local government entities to notify us of any potential violations for projects authorized under eagle incidental take permits. If we receive notice of a potential violation, we will work with the permittee and the relevant state, tribal, or local government entity with authority to enforce the applicable law or regulation to ensure the authorized project complies with the relevant law or regulation. This may require modification of permit conditions.

Comment: The Service continues to rely on the notion that the 5-year maximum permit duration is the ''primary factor'' discouraging permit applications, which is based on anecdotal information. Other science-based factors, such as lack of mitigation options and effective risk analysis, have significantly precluded eagle permit issuance.

Response: We agree that the 5-year maximum permit duration has not been the only factor discouraging applications from the industrial sector. The lack of compensatory mitigation options has also been the subject of criticism from industry, and we are working with partners to develop metrics that would allow us to be confident that methods other than power line retrofits can be relied on to appropriately offset authorized take of eagles. We are also taking steps to establish third-party mitigation funds and/or banks to facilitate compensatory mitigation requirements. Some potential applicants may be dissatisfied by the requirement for compensatory

mitigation for every authorized take of a golden eagle, but that requirement is ''science-based.'' It also stems from the statutory mandate that authorized take be compatible with the preservation of eagles.

Comment: During the 5-year reviews, the Service should consider using the ''evidence of absence'' model, which is designed to tell how likely it is that take has not exceeded a certain number (with a certain degree of confidence). The model can be used to predict take and then a check-in may occur every few years to ensure a permittee does not go over its take limit.

Response: The Service agrees with the commenter that robust estimators such as the ''evidence of absence estimator'' (Huso et al. 2015) should be used to obtain unbiased estimates of mortality from systematic searches for animal remains. Such estimators should account for the proportion of animals killed that fall into the search area (which should also consider the spatial distribution of killed animal remains), the likelihood animal remains that fall into the search area will persist long enough to have an opportunity to be detected during a scheduled search, and the probability that a searcher will detect the remains during a search, and should include measures of uncertainty. However, there are a variety of robust estimators in the literature (see Korner-Nievergelt et al. 2015 for discussion of several), and the appropriate estimator for a particular site or survey may vary depending on details specific to the objectives and survey design; therefore, estimators should include the elements discussed above and should be considered on a case-by-case basis. The Service uses a Bayesian model to predict potential take of eagles at proposed land-based wind facilities based on information collected before a facility is constructed and then incorporates data from systematic searches for eagle remains to update the model and predictions and evaluate take relative to what is authorized by a permit (see the ECPG, Appendix D, for additional details).

Comment: Rather than issuing permits for up to 30 years, the Service should consider automatic renewal of 5-year permits in limited situations; for example, if impacts are less than expected; if eagle take has not occurred; or if eagle minutes are less than expected, the LAP is increasing, and eagle populations are stable.

Response: Automatic or automated renewal under the described circumstances would be challenging, since some review would always be needed to ascertain whether these conditions are met. We agree that permit renewal should be relatively straightforward under these circumstances and we anticipate that being the case.

Definitions

Comment: It seems pointless to try to make a distinction between ''purposeful'' and ''incidental'' take.

Response: While the impacts on eagles may be the same, we disagree that it is pointless to distinguish between purposeful and incidental take of eagles for the purposes of regulations. Purposeful take is generally very limited and different in practice than incidental take and requires different regulations to properly and efficiently regulate the various activities that fall within those categories.

Eagle Permit Fees

Comment: The proposed fee is very high, including the proposed administration fee for long-term permits. High fee structures may discourage take permit applications. To the extent that the Service maintains this fee structure in the final rule, permit fees should be committed exclusively to the processing and administration of eagle take permits to expedite review of applications and permit processing.

Response: The purpose of establishing such a fee structure is to provide capacity to process permits. Office of Management and Budget (OMB) Circular No. A–25 requires federal agencies to recoup the costs of ''special services'' that provide benefits to identifiable recipients. Permits are special services that authorize recipients to engage in activities that are otherwise prohibited. Our ability to provide effectively these special services is dependent upon either general appropriations, which are needed for other agency functions, or on user fees. Accordingly, the permit fees associated with eagles permits are intended to cover the costs the Service incurs processing the average permit. Nonetheless, in response to comments on the proposed rule, these final regulations adopt an $8,000 administration fee for long-term permits, rather than the proposed $15,000 fee.

Comment: For small independent energy producers to enter the market, permit cost should be scaled properly, based, for example, on number of turbines, electric output, or risk to the local eagle population.

Response: It is not practicable for the Service to assess and charge a unique fee per project seeking take authorization. As described in the fee section of this rule, the application fee for long-term permits was derived from average costs associated with processing these complex permits. Monitoring and mitigation costs, however, are scaled to the project, and would be expected to be lower for smaller-scale projects. The Service intends to involve the public in developing additional guidance for projects that pose a low risk of eagle take, which may be particularly relevant for small projects. Finally, in response to comments on the proposed rule, this final regulation adopts an $8,000 administration fee for long-term permits, rather than the proposed $15,000 fee.

Comment: Increased fees will likely address some of the required costs to implement a revised program, but the Service is already greatly understaffed. The preferred alternative will be no more efficient or effective, nor will wait times for permits be improved, in the absence of sufficient and appropriate funding.

Response: We cannot collect fees from the public to cover the costs of agency functions that are covered through funds appropriated by Congress. We can and do assess fees to cover the costs of special services that accrue only to certain members of the public, such as permit applicants and permittees.

Comment: The proposed rule is not clear whether the fee structure changes for non-purposeful/incidental take (§ 22.26) and nest removal (§ 22.27) permit applications will apply to government entities, including municipalities, tribes, and state and federal agencies, or if these entities will remain exempt.

Response: Regulations at 50 CFR 13.11(d)(3), which apply to these permits, waive the permit application fee for any federal, tribal, state, or local government agency or to any individual or institution acting on behalf of such agency.

Comment: The application fee of $500 for a residential incidental take permit, plus a second $500 fee for an eagle nest take permit, seems prohibitively high for the average homeowner.

Response: The $500 application processing fees for the incidental take permit and the eagle nest take permit have been in place since 2009, and are not changing for homeowner applications. Also, we note that it is very rare that anyone needs both permits. Permits to remove nests cover associated disturbance to the eagles, and even the need for that is rare, since most nest take permits are for removal of alternate nests.

Comment: The proposed permit fees and other costs associated with implementing required elements of an eagle permit drive up costs and provide little benefit to eagles.

Response: We disagree that these regulations provide little benefit to eagles. These regulations require permittees to avoid and minimize impacts to eagles to the maximum extent practicable. Such measures will greatly benefit eagles.

Fatality Prediction Model

Comment: The proposed rule implies that survey protocols the Service has developed for the wind industry will be applied to all activities that may require incidental take permits. This is inefficient and ignores that other protocols might be more suited to other activities.

Response: The Service's proposal would only require use of industry- or activity-specific protocols when they exist. At this point, the only such standards are those included in this final rule for estimating eagle take at wind facilities. The Service plans to develop standards for other industries in the future, and will seek industry input in the development of those protocols.

Comment: The collision risk model (CRM) recommended by the Service for eagle fatality estimation at wind projects relies on a sample size that is too small and data that are too outdated to provide reliable predictions for either golden or bald eagles. Research recently published in a peer-reviewed scientific journal provides new collision probability rate estimates that are based on more recent data and a larger data set collected from modern wind facilities. The Service should revise its model inputs to reflect this new information.

Comment: Codifying the Service's CRM to estimate eagle fatalities at wind facilities is not appropriate because the model has changed four times since it was introduced in 2013. Incorporation into the regulations would inhibit further necessary improvements.

Response: The Service has always intended to revise the collision probability component of the CRM using data collected under eagle incidental take permits at wind facilities. However, to date, so few incidental take permits have been issued at wind facilities that no progress has been made in this area. As an alternative for the immediate future, the Service believes that publicly available data collected at wind facilities operating without incidental eagle take permits can be appropriate for such an update, provided the data and protocols under which the data were collected can be verified and shown to be appropriate, and that the wind facilities that make their data available constitute a representative cross section of wind facilities in operation today. The Service is working with the authors of the referenced paper to conduct an evaluation of their data to determine if it meets the above criteria for use in updating the CRM. As to the CRM having changed rapidly since it was introduced, that is not the case. The CRM described in Appendix D of the ECPG is still the version being used by the Service. The CRM has had to be adapted on occasion to accommodate data collected by prospective permittees that did not follow Service guidance in Appendix C of the ECPG, but the CRM remains unchanged. As noted above, we do expect model inputs to change, and as noted in response to other comments, over time we may incorporate other scientifically supported covariates (variables that are possibly predictive of the outcome under study) associated with eagle collision risk into the CRM. In response to this and other comments, the Service has decided not to incorporate any parts of the ECPG into the rule so that future updates can be implemented without going through formal rulemaking.

Comment: The rule should not restrict monitoring and survey options for wind projects to Service-approved ECPG protocols. The best available science should be applied to risk assessment and fatality monitoring.

Response: The Service's eagle non-purposeful take permits program follows DOI policy by using a formal adaptive management framework to quantify and reduce scientific uncertainty. A major area of uncertainty is the mortality risk posed to eagles by individual wind facilities. When the Service created the non-purposeful take rule in 2009, there was no scientifically accepted way to estimate such risk. However, the Service must authorize a specific eagle take limit for each permit in order to ensure cumulative take from all permitted projects does not exceed regional take limits, or that appropriate compensatory mitigation is carried out if the take limits are exceeded. Service and U. S. Geological Survey scientists developed the CRM to estimate eagle fatalities at individual wind facilities using adaptive management; this approach necessitates the collection of standardized pre- and post-construction data and the use of the CRM, or a model much like it, to generate and update fatality estimates. For this reason, in the proposed rule, the Service contemplated codifying its current guidance regarding data collection and fatality predictions in the regulations. As this comment reflects, there was considerable opposition to this among commenters. In response, the Service has modified its proposal for this final rule by omitting the proposal to codify parts of the ECPG in the regulations. However, the adaptive management process cannot function credibly without standardized pre-construction site-specific eagle exposure data, so the Service has instead incorporated minimum standards for such data for incidental take permits at wind facilities directly into this final rule, subject to waiver under exceptional circumstances. The Service also will not require permit applicants to use the CRM to estimate eagle fatalities for their permit applications; permit applicants can use any credible, scientifically peer-reviewed model to generate eagle fatality and associated uncertainty estimates for their applications. However, the Service will use the CRM and applicant-provided data to predict fatalities for each incidental eagle take permit for a wind facility. The Service will treat any alternative models used by the permit applicant as candidate models whose performance may be compared formally to that of the CRM as part of the adaptive management process.

Comment: The Service's CRM is flawed and should not be required for use to estimate fatalities at wind facilities.

Response: The Service's CRM was designed as an integral part of the adaptive management process, with model complexity and performance improving over time with use and formal updating. The CRM uses a Bayesian framework that allows for the formal combination of existing (prior) data with project-specific data for eagle exposure and collision probability. The Service requires eagle incidental take permit applicants to conduct pre-construction eagle-use surveys within the footprint of the planned wind facility to generate project-specific data on pre-construction eagle exposure. In the case of collision probability, however, there are no project-specific data to combine with the prior data until after the project has operated for several years. The Service uses prior information on collision probability from the only wind facilities that had publicly available data on eagle use and post-construction fatalities in 2013; these data came from four facilities; did not include information for bald eagles; and, for some, were from older-style wind turbines that might have different collision probabilities than modern

turbines. However, these deficiencies only affect the initial eagle fatality estimates at permitted wind facilities. The adaptive management approach calls for formally combining the prior information with standardized data collected on actual eagle fatalities after each facility becomes operational. These updates would occur no less frequently than once every 5 years at each facility. Such updates will naturally correct for any bias in the initial ''collision-prior-based'' fatality estimate, so that the fatality estimates over most of the life of a wind facility will be heavily weighted towards actual fatality data from the site. Moreover, the post-construction fatality information can be combined with data from other permitted wind facilities to update and improve the collision probability prior for the national CRM. Thus, the Service intends to improve the predictive accuracy of the CRM both at the individual project level and nationally through standardized use as a formal part of its adaptive management process.

Comment: Eagle use, the main predictor variable in the CRM, is a poor predictor of eagle fatality risk. Use rates certainly failed to predict the golden eagle fatality rate at several wind facilities in Wyoming. Other factors besides eagle use are more important in determining eagle collision risk.

Comment: The Service's current CRM assumes that modern wind turbines have the same risk profile as wind turbines installed many decades ago despite evidence to the contrary.

Response: The Service disagrees that use rates cannot be used to predict eagle fatality risk. For example, the Service has demonstrated that use rates actually performed very well as predictors of golden eagle fatality risk at the same Wyoming wind facilities referenced in this comment. In fact, those facilities were used to demonstrate the effectiveness of the Service's CRM and adaptive management updating process for a scientific peer-reviewed journal article (New et al. 2015). However, the Service agrees that other factors besides eagle use likely affect collision risk. The ECPG identifies 11 general categories of covariates that we believe may affect eagle collision probability to some degree, including three that relate to turbine design. However, these are not presently incorporated into the CRM because, as pointed out by peer reviewers of the draft ECPG, scientific support for the role of these factors in collision risk is speculative and not quantifiable at this time. Furthermore, the effects of these factors may vary across locations. The Service believes that over time, though application of the adaptive management process, scientific support will accrue for inclusion of some of these covariates in the CRM.

Comment: Our Project Eagle Conservation Plan uses the Service's CRM estimated eagle take of one eagle per year. However, no eagle carcasses have been found in 3½ years of professional biologists monitoring.

Response: The fact that no eagle mortalities have been discovered does not mean that no eagles have been killed. Detection rates for eagle carcasses on surveys are less than perfect, and scavengers can remove carcasses before they are detected. The Service relies on estimates that account for these factors that affect detection probability to estimate the actual eagle fatality rate. Also, as discussed in other responses, under the adaptive management framework, estimates of the numbers of eagles killed that account for search effort, detection, and scavenging based on the monitoring data would be used to update the CRM for the project and improve future predictions of fatalities based on site specific data.

Comment: The Service's CRM vastly overestimates golden eagle mortality on the wind projects we have analyzed.

Response: The Service has made the explicit decision to manage the quantified uncertainty in the CRM estimates in a manner that reduces the risk of underestimating eagle fatalities at wind facilities. The median (50th quantile) fatality rate estimate is the point at which there is an equal risk of underestimating and overestimating eagle fatalities. The Service uses the 80th quantile of the CRM estimate as the take limit for incidental take permits, which shifts the risk in an 80:20 ratio away from underestimating eagle take. The Service believes this is appropriate because the consequences of underestimating eagle take are far greater than the consequences of overestimating take, and not just because of unintended consequences on eagle populations. For example, if eagle take at the individual permit level was consistently underestimated, many permittees would exceed their permitted take limits, necessitating permit amendments, additional costly and unplanned after-the-fact compensatory mitigation actions, and possible enforcement action with associated fines. For bald eagles with positive EMU take thresholds, consistently underestimating take could lead to permitted take exceeding the EMU take limit, which would necessitate retroactively requiring permittees that initially had no compensatory mitigation requirements to implement mitigation after the fact. Finally, if LAP take limits were unexpectedly exceeded, NEPA compliance for permits overlapping the affected LAP would have to be reviewed, possibly resulting in the need to develop supplemental NEPA documents or new EAs or EISs for operating wind projects. Although these consequences are most likely if there is a systematic bias in the fatality estimates themselves, even with an unbiased estimator some of these consequences could be expected with 50% of permits if the Service were to use the median fatality rate as the take limit for individual permits. In contrast, if permitted take is set at a higher percentile of the fatality prediction, the primary consequences are that the permittee is likely to exceed actual compensatory mitigation requirements over the first 5 years of operation (if compensatory mitigation is required). Additionally, the Service would likely routinely debit some take from the EMU and LAP take limits unnecessarily, thereby underestimating available take when considering new permit requests. Both of these issues are at least partially remedied when initial take estimates for projects are adjusted with project-specific fatality data after the first 5 years of operation.

Comment: The Service should adopt an approach that only requires mitigation for actual, not predicted, eagle take under permits. Otherwise, permittees unfairly have to overcompensate for the true effect of their projects.

Response: The Service must authorize a specific eagle take limit for each permit in order to ensure cumulative take from all permitted projects does not exceed regional take limits, or that appropriate compensatory mitigation is carried out if take limits are exceeded. As discussed in the previous response, the Service purposefully uses an estimator for wind projects that is unlikely to underestimate take to avoid the severe negative consequences that brings. However, over-mitigation can be confirmed and rectified when the initial take estimates for projects are adjusted with project-specific fatality data after the first 5 years of operation. At that time, permittees receive credit for any excess compensatory mitigation they have achieved, and those credits can be carried forward to offset future eagle take for that project.

Comment: The Service's CRM predicts unrealistically high rates of bald eagle fatalities at wind projects given the low number that have actually been reported. The Service needs to develop and use a separate fatality

prediction model for bald eagles based on new species-specific data collected per the recommendations in the ECPG.

Comment: The Service recently released a draft Midwest Wind Multi-Species Habitat Conservation Plan (HCP) for public comment. The draft HCP uses a version of the CRM to predict bald eagle impacts based on actual bald eagle data at wind energy facilities rather than solely relying on data from golden eagles and applying those data to bald eagles. The result is substantially different than the use of the Bayesian model based on golden eagle data and presents an assessment of bald eagle take that is both more realistic and more scientific than the proposed method. The Service should similarly here use data that are known to be specifically applicable to bald eagles. To that end, there are a number of ongoing studies and/or recently completed studies that could be used to provide a much better assessment of bald eagle risk and wind farms once they are made public.

Response: We are aware of arguments that the CRM predicts unreasonably high rates of bald eagle fatalities at wind facilities; however, we have not received and had the opportunity to carefully review data that are publicly available that actually confirms this. The Service does not disagree that bald eagles may prove to be less at risk from blade-strike mortality than golden eagles, but there are plausible reasons to expect that bald eagle fatality rates may be more variable than those for golden eagles, and under some conditions bald eagle collision probabilities may actually be higher. The reasons are: (1) Bald eagles congregate in larger numbers than golden eagles, and while in those concentrations they engage in social behaviors that may increase their risk to blade strikes at a project sited in such an area; (2) in some of the areas where bald eagles congregate, there are multiple fatalities each year of bald eagles that fly into static power distribution lines and vehicles, suggesting that as a species they do not possess a superior ability to avoid collisions; and (3) a thorough study in Norway documented a substantial population-level negative effect of a wind facility there on a population of the closely related white-tailed eagle as a result of blade-strike mortality (Nygaard 2010). Also, as noted in response to other comments, possible overestimates of risk are likely to be a problem only for the first 5 years of operation, as the initial fatality estimates for permits at wind facilities are intended to be updated with project-specific, post-construction fatality data within that time. As noted in response to other comments that expressed frustration with perceived frequent updating of the Service's CRM, this is an area of active research and investigation, and changes are to be expected as new information becomes available. The Service will make every effort, using the tools at its disposal, to disseminate information on changes or updates to the CRM when they occur.

Comment: A process should be developed by which data and reports associated with pre- and post-construction surveys can be made readily available and the prior distributions can be updated in a streamlined manner for real time application to inform management decisions.

Response: The proposed and this final rule state that monitoring reports required under incidental eagle take permits will be available for public inspection. The Service will use the data to perform formal Bayesian updates of the CRM and to generate updated fatality predictions for each individual project at no less than 5-year intervals, and we will update the prior data for collision probability and eagle exposure in the national model a regular interval, dependent on the amount of new data that is available.

Comment: Eagle mortality related to electric transmission and distribution is vastly different than other forms of eagle mortality. These utility systems are complex, are located in varied landscapes, and can extend hundreds of thousands of miles. Bald and golden eagles interact with transmission and distribution facilities in different ways. Performing surveys across the country and by utility would be challenging and would provide varied results that may not be meaningful to the Service or the utility. Utilities have provided eagle and migratory bird mortality data to the Service for over a decade. Additional monitoring and mortality data seem redundant and problematic when this information has already been provided to the Service. The resources required for monitoring efforts could be better utilized by retrofitting high-risk poles.

Response: In general, the Service agrees with this comment and will take these factors into consideration when developing pre-permitting data standards and permit terms and conditions for monitoring incidental take of eagles at electric transmission and distribution facilities and structures.

Comment: While permittee monitoring of the permitted activity is reasonable, the regulations should not place a burden on permittees to monitor ''unpermitted take.''

Response: The regulations do not ask permittees to monitor unpermitted take (except for take caused by the permitted activity that exceeds the take authorization). The Service compiles such information and uses the data in its LAP assessment, but this assessment does not require any information on unpermitted take be provided by the applicant.

Comment: The Service does not provide sufficient evidence that monitoring is an effective use of resources that actually confers conservation benefits to eagles. The high cost of monitoring is especially concerning given that the Service has not indicated that such a burden would actually further the purposes of the permit. Overly burdensome monitoring requirements discourage permit applications.

Response: Monitoring is among the most important and essential elements of the Service's eagle permitting program. The Service has acknowledged in these responses to comments and elsewhere (*e.g.,* the ECPG, the proposed rule, and the PEIS) that considerable uncertainty exists in all aspects of the eagle permitting program, particularly with respect to the accuracy of models used to predict the effects of actions like the operation of wind turbines on eagles. The Service has followed DOI policy and designed the eagle permitting program within a formal adaptive management framework, as described in response to other comments, in the preamble to this final rule, and in detail in Appendix A of the ECPG. Monitoring is an essential and fundamental element of adaptive management; it is absolutely necessary to reduce uncertainty and improve confidence in the permitting process; it is also essential to account for and provide credit to permittees who over-mitigate for their eagle take in the initial years of wind project operation. We will continue to require monitoring as a condition of all incidental take permits for which uncertainty exists to fulfill the Service's adaptive management objectives and to ensure take of eagles is within the terms and conditions of the permit.

Comment: Based on a review of data collected for pre-construction eagle use surveys, little in the way of standardization actually exists among the use rate data that the proposed rule characterizes as the products of a standard protocol.

Response: We agree with this commenter that the ECPG, as non-binding guidance, has not resulted in

the level of standardization that we had hoped. For that reason, we proposed incorporating key elements of the ECPG into the final rule by reference. Based on comments we received on the proposal, we have decided to instead include key language directly in this rule on pre-construction survey procedures and resulting data that will be required for eagle incidental take permit applications at wind facilities, and general guidance for other activities. We have not included similar requirements in the rule regarding post-construction fatality monitoring because these survey protocols are incorporated as binding terms and conditions of the incidental take permits. We added language to the preamble of this rule that explains why we believe this action will improve standardization of data collection.

Comment: The Service must not rely on any for-profit industry to monitor itself. Data obtained by third party monitors should be provided directly to the Service before or at the same time it is provided to project operators.

Comment: To the extent there are even benefits to using third-party monitors, there are considerable costs to using them. Without a showing or evidence that observation and/or the reporting has been biased, it is unreasonably burdensome, arbitrary, and capricious to impose such costs.

Response: We agree with the large number of entities that urged the Service to require third-party monitoring for some permits. The final regulations require that for all permits with durations longer than 5 years, monitoring must be conducted by qualified, independent entities that report directly to the Service. In the case of permits of 5-year durations or shorter, such third-party monitoring may be required on a case-by-case basis. With regard to the second comment, we do not agree that there will be significant additional costs imposed by the requirement for third-party monitoring. Most companies already rely on and pay for consultants to conduct project monitoring, presumably because it is more cost-effective than supporting those activities ''in-house.''

Comment: The Service should not codify any parts of the ECPG as that document needs to be a living document. To the extent that the Service does codify parts of the ECPG, at a minimum the entire document should be subject to further notice and comment.

Comment: The Service should provide a list of required data and estimates it needs to process an eagle incidental take permit request, rather than the methods by which the data must be obtained. The feedback loops between data collection and analysis that the Service notes as rationale for requiring standardized methods are not dependent on collection methods, only on data types.

Response: In response to these and other comments, the Service has withdrawn the proposal to codify Appendices C and D of the ECPG. However, the adaptive management process underpinning the entire eagle incidental take permit program absolutely requires standardized pre-construction, site-specific eagle exposure data. The second comment that the means by which the data are obtained do not matter for the adaptive management process is simply incorrect. Instead, the Service has incorporated minimum standards for such data for incidental take permits at wind facilities directly into this final rule, subject to waiver under exceptional circumstances. We also disagree with the suggestion that requiring these data standards necessitates additional notice and public comment. The rule language is restricted to key elements of Appendix C of the ECPG, which has gone through and been modified as a result of two rounds of public notice and comment, and the survey data requirements have been through two rounds of scientific peer review. These survey requirements should not be overly burdensome or unexpected because they were substantially modified after the first round of public comments on the ECPG to be largely compliant with the wind industry's existing voluntary standards for pre-construction eagle surveys. Moreover, these standards represent the minimum that the Service has specified as necessary to support an eagle incidental take permit application since 2013 (per the ECPG).

Comment: All wind farms should be outfitted with remote video cameras on wind turbines that can be viewed at all times by the public to aid enforcement of wildlife mortalities.

Response: The Service is unaware of data that show that video cameras on wind turbines are an effective means for obtaining unbiased estimates of eagle fatality rates. We firmly support the exploration and development of such technology, however, and these regulations are flexible enough to allow for their incorporation into post-construction monitoring protocols when warranted.

Local Area Populations

Comment: In general the use of an LAP analysis to try to ensure no impact on local populations has merit but how are LAPs determined? Please provide a greater explanation with examples so there can be greater clarity in understanding the implications of the proposed rule and just how the more restrictive implications of the LAP analysis will provide protection to key areas.

Response: The LAP is determined by extrapolating the average density of eagles in the pertinent EMU to the LAP area, which is the project area plus an 86-mile (bald eagle) or 104-mile (golden eagle) buffer; these distances are based on natal dispersal distances of each eagle species. As an example, consider a one-year golden eagle nest disturbance permit application in western Colorado, which is in Bird Conservation Region (BCR) 6 under the current 2009 EMUs. The activity being undertaken could lead to the loss of one-year's productivity, which has an expected value of 0.59 golden eagles removed from the population (the average one-year productivity of an occupied golden eagle territory in BCR 16 at the 80th quantile, as described in the Status Report). This EMU has an estimated golden eagle population size of 3,585 at the 20th quantile, and the BCR covers 199,523 square miles, yielding an average golden eagle density of 0.018 golden eagles per square mile. The local area around a single point (the nest to be disturbed in this case) is a circle with a radius of 109 miles, which yields an LAP area of 37,330 square miles, thus the estimated number of golden eagles in this LAP would be 671 individuals. The 5% LAP take limit for this permit under the current 2009 EMUs would be 34. The Service has developed a Geographic Information System (GIS) application that queries spatial databases on existing eagle take permit limits and known unpermitted take within the LAP area, as well as for any other permitted projects whose LAP intersects and overlaps the LAP of the permit under consideration. If this query indicates existing cumulative permitted (*i.e.,* over all existing permits) take for the LAP area is less than 34, and the unpermitted take database and other information available to the Service does not suggest background take in the LAP is higher than average, a permit for the take of 0.59 golden eagles could be issued without further analysis of the effects on eagles by tiering off this PEIS. If either condition were not true, the permit would require additional NEPA analysis. In either case, if the permit is issued, it would require compensatory mitigation to offset the authorized take, because the EMU take limit for golden eagles is zero.

Comment: Given the nature of the golden eagle population in the western United States, identification of local populations with meaningful demographics is very difficult, primarily due to emigration and immigration. Accordingly, the Service should focus on achieving only a stable or increasing EMU population.

Comment: As long as national and EMU eagle populations stay stable or increase, the Service's goals for eagles have been met. The LAP analysis is unnecessary and burdensome, and has no biological value.

Response: The Service disagrees. Biologically, recent data from satellite tracking studies show that while both bald and golden eagles range widely, there is high philopatry to natal, wintering, and migration stopover areas. Thus, local impacts can have far-reaching effects on eagle populations. Local populations of eagles also are of great cultural and social importance. The Service received many comments from states, tribes, local governments, and environmental organizations to this effect, and in support of including the persistence of local eagle populations in the management objective for eagles. Thus, the Service concludes that preservation of local eagle populations accomplishes both important biological and cultural objectives.

Comment: Assuming uniform density in the LAP analysis leads to greater relative protection of areas with higher than average eagle density within an EMU, and less relative protection in areas of lower density. The Service should account for variation in density, as well as improved knowledge of seasonal changes in eagle density and population-specific movement patterns.

Comment: We recommend that the Service's analysis includes more precise bald eagle LAP data where available. This would ensure that permitting decisions are well-aligned with the proposed preservation standard, and would be consistent with the Service's commitment to use the best available information and practice the best science.

Response: The Service agrees with these comments in principle. The Service acknowledges two limitations in using the LAP method to regulate incidental take. First, eagle density estimates are derived from nesting or late-summer population surveys; therefore, estimates do not account for seasonal influxes of eagles that occur through migration and dispersal. Second, eagle density estimates are not uniform across the EMU. Current LAP take thresholds allow the Service to authorize limited take of eagles while favoring eagle conservation in the face of the uncertainty. Given better information on resource selection, seasonal variation in density, and an improved understanding of seasonal changes in eagle density and population-specific movement patterns, the Service will refine the LAP analysis to better assess potential impacts of projects. We do not believe it would be appropriate to make such adjustments piecemeal or on a case-by-case basis, because LAP areas extend across state and even EMU boundaries; thus, a common frame of reference is necessary throughout each LAP. We are actively engaged in research designed to allow for better accounting of spatial and temporal variation in eagle density in the LAP calculations. We will incorporate these improvements to the LAP analysis as better estimation procedures are developed through formal updates to the ECPG after notice and public comment.

Comment: By requiring the LAP analysis and setting a take limit of 5% for the LAP, the Service appears to be setting a ''hard cap'' on take at this scale. It is unclear whether any take exceeding 5% of the LAP would be allowed, even if offset by compensatory mitigation.

Comment: The LAP analysis could unnecessarily limit incidental take and add to the regulatory burden, thereby potentially limiting some economic development in high-density bald eagle areas, without providing conservation benefit. In contrast, implementing the LAP analysis as proposed could put areas of low bald eagle densities at higher than necessary risk of local depletion.

Comment: We recommend that the LAP provision be applied as guidance, not regulation, especially for areas of high eagle densities that are not at risk of local depletion from limited take.

Comment: The proposed rule language setting a 5% LAP take limit is highly concerning. As written, it appears that no permits would be issued to new projects unless those projects can somehow reduce their own historic take.

Response: The purpose of the 5% LAP take limit is to ensure that projects that tier off this PEIS will not cause the extirpation of local eagle populations. Exceeding the 5% LAP take limit does not mean that we cannot or would not issue a permit. Instead, it would trigger a harder look at local eagle population effects at the individual project level, often through development of a project-level EA or EIS. The result of that analysis could be a determination that the permit would be inconsistent with the Eagle Act preservation standard, in which case the Service would either not issue the permit or might determine that, with the application of LAP-level compensatory mitigation, a permit could be issued. However, in some cases, mostly involving bald eagles, we expect the closer look would show that, despite the high local take rate, eagle populations at the LAP scale are robust enough to withstand additional take, in which case LAP-level mitigation might not be required in order to issue an incidental eagle take permit. The main point is that the effect at the LAP scale of take exceeding 5% will have to be determined on a case-by-case basis. Based on our analysis of the population-level effects of take for bald eagles, we do not believe that applying the LAP-scale analysis as proposed risks causing the extirpation of local bald eagle populations even in areas of lower-than-average density.

Comment: The unpermitted take is part of the baseline above which the LAP permit thresholds are applied, and it therefore must not be subtracted from available take at the scale of the LAP or EMU.

Response: The Service has determined that take, authorized or not, that was occurring prior to 2009 does not need to be accounted for within the EMU take limits. This determination does not apply to the LAP take limits, nor does it apply to unpermitted take that has been added since 2009.

Comment: Taking into account unpermitted take within an LAP is problematic because many regions may already exceed the 5% take limit cap by virtue of the existing activities to which unauthorized take is attributed. This means that unpermitted projects are essentially given priority over permitted projects.

Comment: The LAP approach seemingly penalizes developers for siting projects in areas with fewer eagles, which, if true, is entirely counter-intuitive, counterproductive, and opposite from what a permit program of this nature should attempt to accomplish. In areas where eagle densities are low, the chances that the 5% LAP take limit will be exceeded is higher.

Response: Because the 5% LAP take limit only applies to Service-authorized take, the take limit itself does not result in a priority being given to unpermitted take. However, it would be irresponsible not to consider such information when and where it is available, and that is what this component of the proposed rule requires. For example, take of golden eagles in the vicinity of the Altamont Wind Resource Area in

California is not currently under permit, yet that take has been well studied and would necessarily have to be considered as part of the cumulative effects considerations when evaluating an incidental eagle take permit application in that region.

The LAP approach will not penalize developers for siting projects in areas with fewer eagles. Because the Service uses the mean eagle population density for all LAPs within an EMU, there is no difference in the LAP population calculated for high- or low-density areas with respect to the LAP analysis.

Comment: Using unpermitted take as a metric for permit issuance provides deference to developers and others who choose not to obtain eagle permits, and increases costs for those who do. This creates a de facto prioritization of unpermitted take instead of penalizing those who take eagles illegally.

Response: The Service agrees that eagle take that is not authorized by permits should not take precedence over take for which permits are sought. Yet, biologically, either form of take results in mortality, which has the same effect on eagle populations, and so both must be accounted for in the Service's analyses and its determinations of whether additional mortality can be sustained relative to the population objectives. Relative to illegal take, the Service's Office of Law Enforcement and DOJ have placed a high priority on enforcement of the eagle take regulations, and those efforts have resulted in several recent settlement agreements with operating wind facilities. The Service intends to increase its prioritization of Eagle Act enforcement efforts following implementation of this rule change with the hopes of increasing incentives for project proponents to seek permits to cover take that is currently unpermitted but which might meet the requirements for coverage under an incidental take permit.

Comment: Because the proposed rule intends to rely on an LAP take limit to demonstrate no significant impact, it must analyze and quantify all eagle impacts, including unauthorized take levels, based upon the best available science and demonstrate how an LAP can sustain additional authorized take. It is inappropriate to limit analyses to authorized take only, which will severely underrepresent actual impacts to eagles. A science-based approach would commit to using the best available information to estimate the level of unauthorized take and then updating that information on a regular basis.

Comment: Take estimates are necessarily speculative for these unauthorized take sources, and Service personnel could use the proposed 5% LAP cap to deny an eagle permit on this basis.

Comment: In order to meet its preservation standard, the Service must require permit issuance determinations that consider all sources of anthropogenic take. The Service must address cumulative authorized and unauthorized take in an LAP when determining permit eligibility by revising 50 CFR 22.6(f)(2) as follows: The take will *likely* not result in cumulative *anthropogenic* [remove: authorized] take that exceeds *1*5 percent of the LAP, or the Service can determine that permitting *such* take [remove: over 5 percent of that LAP] is compatible with the preservation of the bald eagle or the golden eagle.

Comment: The proposed rule states that Service biologists would consider any available information on unpermitted take within the LAP area; evidence of excessive unpermitted take would be taken into consideration in evaluating whether to issue the permit. What would constitute ''any available information''? Who would be responsible for determining whether there was ''excessive unpermitted take''? How is ''excessive'' defined?

Response: The Service agrees that our estimates of unpermitted take are generally going to be speculative. There is only so much that can be done scientifically with anecdotal, incidental information, which characterizes most of the information that exists on unpermitted eagle take. However, the Service's proposal makes it very clear that we do intend to consider available information on unpermitted take as part of the LAP assessment. While the automatic trigger for additional analysis that could lead to a negative permit finding is a permitted take rate in excess of 5% of the estimated LAP, a high unpermitted take rate could also trigger the need for additional analysis and a negative finding with respect to permit issuance. For golden eagles, we have identified that an unpermitted take rate in excess of 10% could be considered high; for bald eagles, we have no scientific basis for establishing such a threshold. However, because unpermitted take is incompletely known and the degree of knowledge varies greatly from place to place, there will be few if any locations where unpermitted take can be accurately estimated, which means that in most cases the known unpermitted take will be greater than what is indicated by the available data. That is why the Service does not propose to set a hard limit on overall take, or on unpermitted take specifically. Instead, the Service will necessarily rely on best judgment to decide whether unpermitted take in any particular LAP is in excess of levels that would allow for additional take without risking extirpation of the LAP. Where data show that unauthorized take exceeds 10% of the LAP, if the incidental take permit is issued, the Service may require compensatory mitigation even if the EMU take threshold has not been exceeded. Finally, with respect to the burden on applicants, Service biologists will conduct the LAP analysis, and as such it will not trigger additional work for the permit applicant. To assist with the assessment of unpermitted take at the LAP scale, the Service has compiled and will continue to compile all available information from eagle necropsy reports, Office of Law Enforcement investigations, Special Purpose Utility Permit reports, and other sources into a national database that will be queried by Service biologists using a spatial GIS tool as part of each LAP analysis. We have also established internal processes that will result in more dead eagles being necropsied (to provide information about cause of death) and included in the database.

Comment: The Service should select an alternative in the PEIS where the LAP analysis approach is not incorporated into the regulations. Instead, it should develop specific eagle population size goals (other than the 2009 baseline) for each EMU and then use those targets to inform permit decisions within the EMUs, rather than the LAPs.

Response: The Service considered a number of other alternatives as possible management objectives for EMUs, among them setting EMU-specific population objectives. However, given the timeframe that was established for this rulemaking, the complexity involved in setting EMU-specific management objectives, and the lack of demographic data specific to each EMU, the Service decided to consider only the 2009 EMUs and Flyways as EMU alternatives for the PEIS, and to incorporate objectives for the persistence of local populations though a coupled LAP assessment process.

Comment: The Service should ensure that EMU and LAP take level analyses are aligned or provide an explanation as to why they are not. Eagle density estimates should not account for wintering or migrating birds for determining take levels in an LAP. Using density estimates is a liberal approach, which could allow for more

take (*e.g.,* involving overwintering birds that would eventually breed far from the LAP) than can be sustained by the resident breeding population in that same LAP. The Service should consider a mechanism for segmenting the population being impacted (*e.g.,* breeding/year-round vs. wintering/migrating).

Response: The EMU and LAP take limits are aligned to the degree that, across an EMU, we would expect a landscape with some areas (*e.g.,* in proximity to permitted projects) having comparatively high levels of authorized anthropogenic mortality but within the LAP take limit, but offset by other areas where authorized anthropogenic take is low, averaging to a maximum anthropogenic take across the entire EMU equal to or less than the EMU take limit. The eagle density estimates used to determine the 5% LAP take limit are summer population levels, and as such do not account for or include wintering or migrant eagles that will likely comprise some of the actual take. Thus, the take limits are conservative with respect to local breeding populations, not liberal as this comment suggests. The Service has initiated a genetic and isotopic assignment test project in conjunction with other cooperators with the goal of eventually being able to determine the approximate natal origin of eagles taken under permits. If this effort is successful, the Service will eventually be able to manage eagle take according to natal population. Until such time, we will continue to manage take in the conservative manner described here.

Comment: The proposed 5% LAP take limit for bald eagles in the southwest EMU exceeds Arizona's population growth rate of an average of 3.7% annually and could cause population declines. The Service should evaluate a separate EMU and a separate take limit for bald eagles in Arizona.

Comment: Because the LAP analysis uses EMU densities instead of local densities, it puts New Mexico's small breeding population of bald eagles at elevated risk.

Comment: The LAP criteria should be applied more strictly in the context of the Southwestern bald eagle population by either lowering the take exceedance thresholds for that population or by making take that exceeds the thresholds impermissible instead of merely ''inadvisable.''

Response: Application of the LAP analysis as explained in the PEIS leads to an eagle density in the Southwestern Bald Eagle EMU of 0.001 bald eagles per square mile. This translates into a take limit of 1 individual per year per LAP. A single LAP centered in the middle of the breeding distribution of bald eagles in Arizona encompasses most of the other occupied breeding territories; thus it is unlikely take of more than one to three bald eagles per year could be approved by the Service in Arizona without conducting a supplemental NEPA analysis. Similarly, in New Mexico, any project that would be predicted to take one or more bald eagles per year would require supplemental analysis, and the permit request could be denied. The Service's models suggest this level of take is well within the sustainable take rate and will not cause population declines in Arizona or elsewhere in the Southwest. A final point relevant to this comment is that any Service permit for take of eagles will specify that the permittee is responsible for complying with all applicable state, tribal, and local laws. States have full discretion to require more stringent protection for eagles under state law.

Comment: The LAP criteria should be applied more strictly in the context of the Sonoran Desert bald eagle population. The Service proposes to set a lower take limit for bald eagles in the proposed southern Pacific Flyway EMU; however, it appears that the proposed EMU includes more populations of eagles than just the Sonoran Desert bald eagle. The Service should separately manage the Sonoran Desert bald eagle.

Response: Although we recognize that bald eagles from the Sonoran Desert have special significance to many Native American tribes in the region, for the purposes of the PEIS and overall management of bald eagle incidental take, the Service does not recognize the Sonoran Desert bald eagle as a distinct taxon or management unit. We do, however, identify bald eagles in the Southwestern United States as a separate management unit based on differences in vital rates compared to other bald eagle populations. We note that not all of these differences are lower; for example, survival of adult bald eagles in the Southwest may be higher on average than in the other management units. Nevertheless, these differences and a desire to allow for continued population growth in the Southwest led the Service to propose a lower take rate there than is indicated based on estimated vital rates. Also, as noted in response to other comments, the LAP analysis would allow very little take per year before additional review would be necessary. For these reasons, we believe the selected PEIS alternative is adequately protective of bald eagles in the Southwest.

Comment: With regard to the cumulative effects analysis within an LAP, should all potential projects that might cause disturbance be treated uniformly? For example, should the first intrusion of relatively intensive human activity in close proximity to a natal area be treated the same as a project at the outer edge of the natal area?

Response: In cases where nest disturbance may occur, it is nearly always a matter of judgment to predict in advance whether the activity will actually constitute disturbance to the degree that take might occur (*e.g.,* a nesting attempt is unsuccessful). The Service has developed the National Bald Eagle Management Guidelines to help assess when a take permit might be advisable, and we are working on similar guidance for golden eagles.

Comment: Some activities are clear candidates for the use of the cumulative impacts analysis. It is unclear, however, if all projects in the LAP, particularly those which are relatively non-intrusive, should be subject to the same cumulative analysis.

Response: Some form of cumulative effects analysis is required for all eagle incidental take permits, and the LAP analysis provides a consistent standardized way to conduct those analyses across all activities, assuming the effect can be expressed in terms of estimated fatalities or decreased productivity.

Comment: Take thresholds should only apply to unmitigated take. For projects adhering to a no net loss standard, no take should be factored into the EMU take limit, and if mitigated within the LAP, take should also not be factored into the LAP threshold.

Response: The Service has not proposed to require compensatory mitigation except in cases where take limits are exceeded. In cases where projected take exceeds the EMU take limit, that projected take will not be subtracted from the EMU take limits, because it is offset. The take is subtracted from the LAP take limits, however, and if that results in the LAP take limit being exceeded, that would trigger additional environmental review. That additional environmental review would take into account whether the take was offset within the LAP or not, and how affects should be reflected in the LAP take accounting.

Comment: Defining the LAP using natal dispersal distance is a good starting metric, but other factors such as proximity to suitable habitat and topography should be taken into consideration, and the latest information on population genetic differentiation, population surveys, and

telemetry information should be taken into account.

Comment: We recommend that the Service's analysis includes more precise bald eagle LAP data where available. This would ensure that permitting decisions are well-aligned with the proposed preservation standard, and would be consistent with the Service's commitment to use the best available information and practice the best science.

Comment: It is important to recognize that Alaska contains a wide variety of eagle habitats, ranging from temperate rainforests in southeast Alaska to boreal forests and tundra in the north, that support differing densities of bald eagles. A one-size-fits-all management strategy, such as the proposed level of sustainable take for LAPs, is not appropriate in an EMU as diverse as Alaska, and thus levels of allowable take should not be uniform throughout the state.

Response: We agree that incorporating fine-scale biological data into the LAP analysis is a desirable goal. However, because such detailed data are not available for the vast majority of locales where incidental take permit applications are desired, it is not practical to require this level of detail in LAP analyses at present. Where such data are available and would contradict conclusions from the standard LAP analysis, they may be considered by the Service, although likely after additional NEPA analysis.

Comment: The goal of simply maintaining the persistence of local populations is not sufficient. The LAP objective, like the EMU objective, should be ''consistent with the goals of maintaining stable or increasing breeding populations.''

Response: Our analyses suggest the LAP take limit will actually allow for additional bald eagle population growth at the LAP scale. All golden eagle take will have to be offset at a 1.2 to 1 ratio, though the mitigation will not necessarily occur in the same LAP as the take.

Comment: The Service should not use the overly conservative 90th quantile for golden eagles to define the LAP area in order to match the median for bald eagles. The area bounded by typical, not extreme, movement is necessary to ensure fair analysis of the LAP under the proposed rule.

Response: The natal dispersal value the Service uses to define the LAP area for bald eagles is actually the median value for females; in bald eagles, as in most raptors, natal dispersal is female-biased (females disperse farther than males; Millsap et al. 2015). By adopting the median value for female bald eagles, the Service was able to capture most of the natal dispersal distribution for males as well. Millsap et al. (2015) lacked enough known-sex individuals to compute separate estimates of natal dispersal distance for male and female golden eagles, and so the Service used an updated 90th quantile for the pooled distribution instead. This is explained in Appendix A5 in the Status Report.

Comment: The Service advocates for siting of wind energy facilities in areas where impacts to eagles are expected to be low; however, siting facilities in low-use areas may inadvertently increase the chance that the project is sited in an area that already exceeds the 5% LAP take limit, making it more difficult or costly to obtain a permit than for a project sited in an area with higher eagle density.

Response: The Service uses the mean eagle population density for all LAPs within an EMU; thus, there is no difference in the LAP population calculated for high- or low-density areas with respect to the LAP analysis. Thus, this scenario is implausible.

Comment: Codification of the LAP cumulative effects analysis creates an economic burden on companies that have fewer resources.

Response: Actually, the LAP analysis will likely reduce costs for permits. First, the LAP cumulative effects analysis is a relatively simple exercise that is conducted by the Service, so no additional resources are required from the applicant to conduct the analysis other than what would be required otherwise. Second, in cases where the LAP analysis is conducted as analyzed in this PEIS, further project-specific NEPA analyses of the cumulative effects of the activity on eagles will not be necessary when projected take is within LAP take thresholds, thereby reducing overall costs for prospective permittees.

Comment: The LAP approach is problematic for long, linear projects such as electric transmission lines that may extend hundreds of miles or for large utility service areas that contain thousands of miles of distribution lines. Calculating and analyzing impacts over multiple LAPs for a single transmission line project or utility service area would be overly complex and very difficult for both the project proponent and the Service, particularly if the lines cross LAPs where the 5% cap is already exceeded.

Comment: The LAP analysis is specific to the wind farm and utilities industry. It cannot be fairly applied to real estate projects or any other industries.

Response: The Service has developed a spatial GIS tool that allows its biologists to compute the LAP calculations quickly, easily, and accurately. The LAP analysis can be applied to any project with borders that can be defined, including linear projects. As noted elsewhere, if these analyses indicate that take in excess of the 5% limit exists within the LAP, more thorough analysis is triggered. It does not necessarily mean an eagle incidental take permit cannot be issued.

Mitigation

Comment: The Service must clarify how proposed compensatory mitigation: (1) Would not have occurred in the absence of a specific permitting requirement; and (2) does more than require permittees to complete actions that a third party is otherwise legally required to complete under federal, state, or local law.

Response: This final rule adopts new language at 50 CFR 22.26(c)(1)(iii)(D) consistent with DOI policy requiring compensatory mitigation to be additional and improve upon the baseline conditions of the impacted eagle species in a manner that is demonstrably new and would not have occurred without the compensatory mitigation measure. Compensatory mitigation must provide benefits beyond those that would otherwise have occurred through routine or required practices or actions, or obligations required through legal authorities or contractual agreements.

Comment: The concept of requiring mitigation to exceed existing, ongoing, or future conservation efforts is speculative and should be removed. This concept would remove incentives for applicants to participate in voluntary actions promoting eagle conservation, especially if no credit is given for these actions.

Response: We have removed language requiring compensatory mitigation to be additional to ''foreseeably expected'' conservation or mitigation efforts. In addition, we have added language clarifying that voluntary actions to benefit eagles taken prior to permit application may be credited towards compensatory mitigation requirements.

Comment: Clear guidance on how to quantify the level of compensatory mitigation that will be required for golden eagle take, other than that it will be greater than 1:1, is currently lacking and should be provided.

Response: The preamble to this rule states that compensatory mitigation for any authorized take of golden eagles that exceeds take thresholds would be designed to ensure that take is offset at

a 1.2 to 1 mitigation ratio to achieve an outcome consistent with the preservation of golden eagles as the result of the permit. We believe this baseline mitigation ratio appropriately balances meeting our obligations under the Eagle Act with what is reasonable, fair, and practicable to permittees.

Comment: The Service should define what the unit of mitigation is, for example, territories, nests, or eagles.

Response: Impacts of an authorized project and benefits of compensatory mitigation are reflected in terms of numbers of eagles. For example, disturbance take would be analyzed for its impact on breeding success (see Tables 13 and 14 in the Status Report). Habitat restoration would be analyzed for its potential benefits to the eagle population.

Comment: Requiring compensatory mitigation at a greater than 1:1 ratio runs the risk of violating the ''rough proportionality'' requirement of the Fifth Amendment's takings clause (U.S. CONST. amendment V; *Koontz* v. *St. Johns River Water Mgmt. Dist.,* 133 S. Ct. 2586, 2596 (2013) (''Extortionate demands for property in the land-use permitting context run afoul of the Takings Clause not because they take property[,] but because they impermissibly burden the right not to have property taken without just compensation.'')). By definition, requiring mitigation at a greater than 1:1 ratio will produce conservation benefits higher than needed to offset actual impacts. The government may ''choose whether and how a permit applicant is required to mitigate the impacts of a proposed development, but it may not leverage its legitimate interest in mitigation to pursue governmental ends that lack an essential nexus and rough proportionality to those impacts'' (Id. at 2595 (emphasis added) (There must be a '' 'nexus' and 'rough proportionality' between the property that the government demands and the social costs of the applicant's proposal'' (quoting *Dolan* v. *City of Tigard,* 512 U.S. 374, 391 (1994).))). Also, because the unconstitutional conditions doctrines forbids burdening an individual's constitutional rights by coercively withholding benefits, the Service may not require compensatory mitigation at a greater than 1:1 ratio in exchange for issuance of a take permit.

Response: The two cases cited by the commenter are not relevant to the offsetting compensatory mitigation requirements in this regulation. *City of Tigard* dealt with a specific regulatory encumbrance on a portion of real property for an unrelated public benefit, and *Koontz* dealt with a requirement for a conservation easement that was far in excess of what was necessary to mitigate the impacts of the project. Even if one could argue those cases are applicable here, the Court in *City of Tigard* developed a ''rough proportionality'' test to determine whether a permit approval condition constitutes a taking, as noted by the commenter. This regulation requires an offsetting mitigation ratio of 1.2 to 1, which, even if it could be considered more than necessary to offset the impacts of a project, falls well within the bounds of being roughly proportional to the impact being mitigated. The Court in *City of Tigard* held that the regulating entity must make an individualized determination that the condition imposed is ''related in nature and extent to the impact of the proposed development,'' though no precise mathematical calculation is required. *Dolan* v. *City of Tigard,* 512 U.S. 374, 391 (1994). The Service has clearly explained in this final rule that the compensatory mitigation ratio is required to ensure that any authorization of golden eagle take is compatible with the preservation of golden eagles. The compensation ratio is not a generalized public benefit like the one struck down in *City of Tigard,* rather it is an encumbrance tied directly to the purpose of the regulations. Thus, this regulation clearly meets the Court's requirement by explaining in detail the compensatory mitigation requirement and its relation to the predicted impacts of a project and whether those impacts are compatible with the preservation of eagles as required by the statute.

Under the Eagle Act, the Service can issue a permit only if it is compatible with the preservation of eagles. We have determined that authorizing take of golden eagles while imposing compensatory mitigation at a 1 to 1 ratio is not sufficient to meet our preservation standard at this time. If eagles are not being preserved, one option is simply not to authorize take until we can determine how to reduce unpermitted take to the point where golden eagle breeding populations are stable or increasing. However, a primary purpose of this rule is to encourage more sources of unpermitted take to apply for permits and implement conservation measures. Rather than imposing a moratorium on new permits for golden eagles, we are requiring offsetting compensatory mitigation at a 1.2 to 1 ratio. In order to authorize any take of golden eagles under these regulations, we must ensure that take is compatible with eagle preservation, and because golden eagles currently are potentially facing declines, the 1.2 to 1 compensatory mitigation ratio appropriately balances compliance with the Eagle Act with not unduly burdening recipients of permits.

Comment: The Service should provide greater details in the rule and/or in guidance to clarify the standards for approving compensatory mitigation measures. Several commenters promoted the adoption of specific mitigation measures including habitat-based conservation banks, lead abatement programs, road carcass removal, support for rehabilitation centers, and others.

Response: Quantifying the benefits of various compensatory mitigation measures and developing standards for their application in permitting is complex. The Service and partners, including industry and NGO partners, has already spent considerable time and effort in developing additional compensatory mitigation measures with the goal of eventually approving their use as effective offsetting compensation. We intend to engage stakeholders to develop additional guidance and the standards for approving mitigation credits, setting appropriate mitigation ratios to address particular mitigation measure effectiveness and uncertainty, and establishing appropriate assurances for durability of mitigation measures.

Comment: In-lieu fee programs frequently do not provide meaningful compensatory mitigation prior to the onset of impacts.

Response: Any in-lieu fee program approved by the Service for use in eagle permitting must meet the same high, equivalent standards as any other mitigation type and must comply with DOI and Service mitigation policy. Compensatory mitigation for eagle take is still relatively new, with few approved methods. This final rule allows for many different types of mitigation to be proposed to allow applicants and the Service to expand the options available for providing compensatory mitigation, providing all such measures comply with the same fundamental standards. The Service will be developing additional implementation guidance to further clarify the standards by which we would approve particular compensatory mitigation types or measures.

Comment: Unproven mitigation measures should not be allowed.

Response: The Service agrees that proposed compensatory mitigation measures that have no basis for their effectiveness would not be approved. Approval of mitigation measures must be based on the best available science. This does not mean that no uncertainties can remain for a

mitigation measure to be approved. Any remaining uncertainties regarding the effectiveness of a mitigation measure must be accounted for to ensure that eagle take is appropriately offset. The Service intends to establish baseline standards for particular mitigation measures and involve the public in setting those standards.

Comment: To expand the breadth of defensible compensatory mitigation options, targeted research should be funded as part of the compensatory mitigation to facilitate the approval of additional effective compensatory mitigation tools. Funding from compensatory mitigation should not be directed toward activities that have less tangible benefits to eagles such as research, population monitoring, or education.

Response: Research and education, although important to the conservation of eagles, are not typically considered compensatory mitigation. This is because they do not, by themselves, replace impacted resources or adequately compensate for adverse effects to species or habitat. In rare circumstances, research and education that can be linked directly to threats to the resource and provide a quantifiable benefit to the resource may be included as part of a mitigation package. These circumstances may include: (1) When the major threat to a resource is something other than habitat loss; (2) when the Service can reasonably expect the benefits of applying the research or education results to more than offset the impacts; or (3) where there is an adaptive management approach wherein the results/recommendations of the research will then be applied to improve mitigation of the impacts of the project or proposal.

Comment: As written, the regulations equate to a ''first come, first served'' standard regardless of the number of eagles taken. Because the ''first come, first served'' standard will create inequities proportional to the level of take, we recommend establishing standardized mitigation for each eagle taken, so that mitigation is equitable to the level of take.

Response: We did consider requiring some level of mitigation for all take, whether within the established take limits or not. However, we have decided not to require mitigation for take that is within the established EMU take limits. For golden eagles, due to their population status, the EMU take limits are set at zero, and permits will all requiring compensatory mitigation. Given the relatively robust population status of bald eagles, and the likely demand for take permits, the Service anticipates that bald eagle populations will continue to grow without implementation of compensatory mitigation for take within the EMU take limits.

Comment: The Service should not condition eagle take protection for an individual project on a permittee acceding to compensatory mitigation for unrelated actions by others. Doing so would raise APA and due process concerns. Additionally, the Service should clarify that no permittee will be required to offset take in excess of take levels reasonably attributable to the activities covered in the permit.

Response: The Service will not impose compensatory mitigation requirements on an individual project unless that project, either singly or in conjunction with other projects in the same EMU (or possibly the same LAP), takes eagles in excess of the take limit. Projects removing eagles from the same EMU or LAP are not unrelated in terms of the eagle populations they affect, and as such the Service maintains it is appropriate and necessary to consider them cumulatively in assessing whether compensatory mitigation is necessary or not. If compensatory mitigation is required, it will be assessed in proportion to the number of eagles estimated to be taken under each permit. For golden eagles, permittees will be expected to contribute to reversing potential population declines, a necessary action if the Service is to allow any additional take of golden eagles and meet the stable population objective. Permittees are not expected to carry the full burden of offsetting unauthorized take; the Service has and will continue to increase enforcement actions against those taking eagles illegally so that unauthorized take will be reduced and restitution can be obtained.

Comment: The proposed rule's modification of the preservation standard with the goal of achieving a net conservation gain or no net loss is premature in light of the Service's agency-wide mitigation policy still being in draft form.

Response: The Service is relying primarily on the standards set forth in the Eagle Act, as interpreted by the Service. The Service has interpreted ''compatible with the preservation'' of eagles to mean consistent with the goal of maintaining or improving breeding populations of eagles since 2009. This final rule adopts the following definition: ''*Compatible with the preservation of the bald eagle or the golden eagle* means consistent with the goals of maintaining stable or increasing breeding populations in all eagle management units and the persistence of local populations throughout the geographic range of each species.'' We have coordinated the development of these revised eagle regulations with development of the Service-wide mitigation policy to ensure consistency. In addition, these final regulations are in compliance with both Presidential and DOI mitigation policy, which have both been finalized.

Comment: The provisions for compensatory mitigation state that it must be based on ''best available science.'' Please provide a definition for this term.

Response: For the purposes of the Eagle Rule, we regard the best available science as scientific data that are available to the Service and that the Service determines are the most accurate, reliable, and relevant for use in a particular action.

Comment: It is not clear how compensatory mitigation requirements will or will not apply to federal and other government entities that apply for incidental take permits.

Response: Federal and other government agencies applying for an eagle incidental take permit would have to comply with the compensatory mitigation requirements of this rule, consistent with agency authorities. The Service understands there may be some circumstances where an agency does not have the discretion or available appropriations to implement compensatory mitigation and would make appropriate accommodations for these circumstances.

Comment: If a separate, distinct agency action benefits eagles, can that action be used or credited towards its compensatory mitigation requirements?

Response: Only actions that meet the additionality standards set forth in this rule could be used for compensatory mitigation. Compensatory mitigation must be additional and improve upon the baseline conditions of the impacted eagle species in a manner that is demonstrably new and would not have occurred without the compensatory mitigation measure.

Comment: The payment into conservation banks and in-lieu fee programs by a government agency could be problematic and potentially in violation of federal appropriations. Consequently, how does the Service foresee compensatory mitigation being implemented by permit applicants that are federal or state agencies?

Response: The Service cannot require a government agency to take an action outside the scope of its authorities. This rule does not assign a preference for any mitigation type. If an agency was

precluded from participating in an approved third-party mitigation program, the agency could implement its own compensatory mitigation.

Comment: Take should not be authorized above EMU take limits, regardless of compensatory mitigation.

Response: The Service believes that the rigorous standards for monitoring and compensatory mitigation in this rule ensure that authorized take over EMU take limits will be compatible with the preservation of eagles. The Service reserves the right to deny a permit if we determine the specific project is not compatible with the preservation of eagles.

Comment: The Service should require compensatory mitigation for all authorized take, including take within EMU take limits.

Response: The Service defines ''compatible with the preservation'' of eagles to mean ''consistent with the goals of maintaining stable or increasing breeding populations in all eagle management units and persistence of local populations throughout the geographic range of each species.'' Based on the Service's status review of the two eagle species, the Service has determined that the sustainable take rate for golden eagles is zero, while the bald eagle population can withstand the loss of several thousand individuals and still meet established preservation goals. DOI mitigation policy requires that mitigation be tiered to achieving landscape-level goals. The Service has determined that when take is below modeled sustainable take rates, we can achieve our conservation goals for the species without compensatory mitigation. By including the persistence of local populations in the preservation standard, the Service may also require compensatory mitigation if a permittee's action would threaten the persistence of a local population.

Comment: Compensatory mitigation should address project impacts by being located in the same LAP as the project impacts.

Response: Authorized projects may affect both resident and migratory individual eagles. Compensatory mitigation for eagle take is still in its infancy, and there are currently limited options to effectively compensate for the loss of eagles. Further limiting those options to the LAP is not practicable to implement at this time. The final rule retains the requirement to site within the same EMU where the take occurred. This allows the Service to target compensatory mitigation to have the greatest benefit to eagles while compensating for the impacts of the authorized project in a biologically meaningful way. For compensatory mitigation that is required to address concerns for a LAP, the Service has a preference for compensatory mitigation projects to be sited in the LAP where the impacts occurred. Projects that raise concerns over a local population would generally require site-specific environmental analysis, including would include consideration of where to site compensatory mitigation.

Comment: Habitat conservation is important for eagles. The Service should provide more guidance on how habitat conservation and restoration may be used for compensatory mitigation.

Response: While the current primary limiting factors affecting both eagle species are not habitat-based, the condition and availability of habitat is an important factor in eagle conservation. The condition and availability of habitat will likely be increasingly important in the future in light of climate and land-use changes. As with other forms of compensatory mitigation, the Service will continue to work with stakeholders to develop further guidance on how to structure habitat conservation efforts in ways that meet the standards set forth in the rule.

Comment: Compensatory mitigation should be implemented prior to the onset of impacts. The Service should allow for flexibility in the timing of mitigation, recognizing that not all mitigation can be provided prior to impacts.

Response: Service mitigation policy prefers that compensatory mitigation be implemented prior to project impacts. This is important to document the effectiveness of the mitigation measure. However, requiring compensatory mitigation to be in place prior to project impacts is not always practicable. All compensatory mitigation must follow the standards set forth in this rule, which are designed to ensure that compensatory mitigation is effective and offsets the impacts of the authorized take of eagles. If compensatory mitigation is implemented after project impacts, then it would have to account for temporal loss of the eagles taken, and mitigation ratios would be adjusted accordingly.

Comment: Unauthorized take and violations of the law are a law enforcement issue, not a permit issue. Unusually high levels of unauthorized eagle mortality within a LAP should not be a trigger for compensatory mitigation.

Response: From a biological perspective, it does not matter whether take is authorized or not; both unpermitted and permitted take result in mortality, and the effects of that mortality on eagle populations is the same. Thus, meeting the Service's management objective of not causing the extirpation of local populations requires that we consider and take into account existing levels of unpermitted take, and where those levels are excessive, to either not issue a permit or to require mitigation if we believe mitigation can be effective in offsetting additional take in the LAP. The commenter is correct that unpermitted take is also a law enforcement issue, and part of the solution lies in increased compliance. Towards this end, the Service's Office of Law Enforcement has and will continue to prioritize enforcement of illegal take of eagles.

Comment: The Service should not employ a ''practicable'' standard when evaluating compensatory mitigation. Compensatory mitigation must be designed to effectively offset all authorized take.

Response: These final regulations better align compensatory mitigation requirements with DOI and Service policy. Compensatory mitigation is required for remaining unavoidable impacts after all appropriate and practicable avoidance and minimization measures have been applied.

Comment: The Service should refrain from establishing an explicit preference for use of in-lieu fee programs, mitigation and/or conservation banks at this time. The Service should continue working with third-party mitigation providers to develop effective mitigation programs and policies governed by equivalent mitigation standards.

Response: This rule does not state a specific preference for mitigation type. While there could be advantages to certain mitigation types in the future, like an in-lieu fee program targeting mitigation actions to maximize benefits to eagles, third-party mitigation options are not yet available for mitigating eagle take. This rule clearly states that all forms of compensatory mitigation must meet the same equivalency standards. More detailed guidance and standards for particular mitigation methods will be developed with public input.

Comment: The Service should consider allowing mitigation proposed under existing regulatory mechanisms, such as the U.S. Army Corps of Engineers' Clean Water Act section 404 permitting and ESA section 10 permitting, to be used for eagle mitigation to avoid unnecessary duplication among agencies and programs.

Response: The Service has particular mandates under the Eagle Act that differ from requirements under the ESA and U.S. Army Corps of Engineers' mandates under the Clean Water Act. To the

extent that existing mitigation programs meet the standards set forth in this rule and future guidance, they could contribute to compensatory mitigation for eagles.

Comment: Tribes are uniquely affected by eagle take permits. The Service should look to tribes with the resources and expertise to support the management of eagles to host mitigation activities, including giving preference for tribal lands for compensatory mitigation projects.

Response: The Service understands and respects that tribes have religious and cultural relationships to eagles that are unique, and that the Service has government-to-government consultation obligations with tribes. The Service values its partnerships with tribes and will continue to seek ways to strengthen these partnerships to advance wildlife conservation, including eagle conservation. This rule states that tribal take of eagles is a higher priority than incidental take covered by these revised regulations. Compensatory mitigation for eagles is relatively new, and there are currently only limited options for permittees. It is not appropriate at this time to further narrow the availability of compensatory mitigation projects to any specific land ownership, including tribal lands. However, nothing in the rule precludes the use of tribal lands as sites for compensatory mitigation, and such matters could be appropriate subjects for tribal consultation on individual permits that may affect tribal interests.

Miscellaneous—§ 22.26

Comment: With the Service's small staff and shrinking budget, the commitment to gathering solid population data for eagles at least every 6 years may be impossible to meet. Adjusting eagle take permits every 5 years (whether they are part of a permit given once, or part of a 30-year permit reexamined every 5 years), particularly based on local scale information about eagle populations, is impossible to do if population data are not gathered in a consistent, comprehensive way, making it impossible for the Service to implement the rules in any meaningful way ''consistent with the goal of maintaining stable or increasing breeding populations.''

Response: The schedule of monitoring proposed in the PEIS balances available dedicated eagle funding in the Service with the technical and logistical demands of eagle monitoring. Under this schedule, eagle monitoring will be conducted annually (not once every 6 years as implied by the comment), but the three major eagle surveys (golden eagle summer, golden eagle winter, bald eagle summer) will be conducted in rotation once each, every 3 years, with reassessments and updates of status every 6 years.

Comment: The Service misapplies the term ''take'' to include injuries or mortalities caused by accidental collisions with wind turbines, since such a statutory construction is inconsistent with the statute's required *mens rea,* and generally ''would offend reason and common sense'' *See United States* v. *FMC Corp.,* 572 F.2d. 902 (2d Cir. 1978).

Response: Operating turbines that incidentally (accidentally) take or kill migratory birds is a violation of the MBTA and the Eagle Act. Collisions with wind turbines are foreseeable and can be avoided, minimized, or mitigated for with the proper implementation of conservation measures. The Second Circuit Court of Appeals in the *United States* v. *FMC Corp.* decision cited by the commenter, along with most other courts, interpreted the MBTA to be a strict liability crime for misdemeanor violations, which means no *mens rea* (mental state) is required to determine guilt *See* 572 F.2d at 905–08. The *United States* v. *FMC Corp.* case dealt specifically with violations of the MBTA and not the Eagle Act, although eagles are also protected by the MBTA. Similar to the MBTA, the Eagle Act requires no *mens rea* for certain violations, including those that incidental take would fall under. *See* 16 U.S.C. 668(b).

Courts have concluded that, under strict liability, incidental take caused by many different activities violates the MBTA *See, e.g., FMC Corp.* (hazardous wastewater pond); *United States* v. *Corbin Farm Serv.,* 444 F. Supp. 510 (E.D. Cal. 1978) (improper pesticide use); *United States* v. *Moon Lake Elec. Ass'n,* 45 F. Supp. 2d 1070 (D. Col. 1999) (power line electrocution and collisions); *Ctr. for Biological Diversity* v. *Pirie,* 191 F. Supp. 2d 161 (D.D.C. 2002) (U.S. Navy military training activities); *United States* v. *Apollo Energies, Inc.,* 611 F.3d 679 (10th Cir. 2010) (oil extraction equipment). *But cf. United States* v. *CITGO Petroleum Corp.,* 801 F.3d 477 (5th Cir. 2015) (oil waste water facilities, but based on the conclusion that the MBTA was primarily enacted to regulate hunting and poaching). Recently, courts have reached similar conclusions with regard to wind-energy operations *See, e.g., Pub. Employees for Envtl. Responsibility* v. *Hopper,* 827 F.3d 1077, 1088 n.11 (D.C. Cir. 2016). There is no reason to conclude that courts would reach different conclusions for incidental take of eagles under the Eagle Act.

Comment: The revised 30-year eagle rule will allow wind energy facilities to cumulatively kill up to 4,200 bald eagles and 2,000 golden eagles annually with no prosecution.

Response: This brief and widely publicized statement distorts the actual facts about the proposed rule in at least four ways. First, it simply ignores the existence of the permitting process and implies the Service will ignore violations by wind companies. Second, the numbers presented for bald eagles are in reality the amount of take that the Service estimates could occur without resulting in a population decline (and the actual number is likely significantly higher; this is a conservative estimate that errs on the side of protection). The numbers do not represent the level of take the Service anticipates authorizing under permits. Third, mention of allowable take of 2,000 golden eagles is completely without basis; the take level for golden eagles is set at zero without offsetting compensatory mitigation. Finally, the estimated sustainable take limits are not allotted to the wind energy industry; the Service issues permits to homeowners and other individuals; local, state, tribal, and federal agencies; and many types of businesses. In fact, the majority of permits that have been issued under the 2009 regulations have been for temporary disturbance or removal of inactive nests for safety purposes.

Comment: The Service does not adequately enforce the Eagle Act when it comes to wind power. Companies, therefore, are not deterred from constructing projects in essential habitats of eagles and other migratory birds. Without increased enforcement, there is no reason to assume the new regulations will lead to any greater degree of compliance.

Response: Eagle take is prohibited by law, and violations may be prosecuted criminally or through civil enforcement authorities. Which type of enforcement is used depends upon the facts of each situation, including the conduct of a wind energy company in siting and operating wind projects. The Service and the U.S. DOJ have taken enforcement action where and when warranted and will continue to do so. In the last 18 months, the Service has resolved five civil enforcement actions concerning unauthorized incidental take of eagles at wind facilities. However, when investigations are ongoing, information about them is not released to the public. It is understandable that the public is unaware of the enforcement actions being pursued by

the Service's Office of Law Enforcement. When investigations are ongoing, information about them is not released to the public, or even to other Service programs, until cases are resolved. In this case, the commenter's statement is just wrong. In fact, just in the last 18 months, the Service has resolved four civil enforcement actions against wind companies. Taken together, the four civil settlements reached over the last 18 months have addressed legacy and interim eagle take at 15 different wind-energy facilities, resulting in 10 additional wind energy facilities applying for eagle take permits (5 had applied for permits at the time settlement discussions commenced) and commitments by the wind energy facilities to spend a minimum of $1,855,000 over the next 3 years on research and development of avian detection and deterrent technologies and to pay $55,000 in civil penalties.

Comment: The Service should consider an approach to ensure permitting and siting regulations are properly followed. In Osage County, Oklahoma, although injunctions were granted at the federal level against construction of wind turbine projects, lack of enforcement meant construction continued without interference. The Service must clarify and strengthen its approach for instances where eagle permitting regulations are not followed by energy developers or others.

Response: The Eagle Act does not directly regulate otherwise legal activities that may result in the take of an eagle or eagles. Specific effects of otherwise lawful activities, including construction and operation of wind facilities, can constitute actions that are prohibited under the Eagle Act, such as disturbance, injury, or killing of eagles. The permit authorization is for the otherwise-prohibited take, which is usually directly caused by the operation of the project. The eagle permit does not authorize the construction of the facility itself.

An injunction is an order issued by a court requiring a person to do or cease doing a specific action. An injunction is considered to be an extraordinary remedy and is available only in special cases where the injunction is necessary to preserve the status quo or to require some specific action in order to prevent irreparable injury or damages that cannot adequately be remedied. The Service is not aware of any injunctions currently in effect ordering any wind energy company to cease taking eagles in Oklahoma. The injunction the commenter refers to may be related to federal cases involving the potential intrusion of subsurface mineral rights by construction of wind-turbine foundations at a facility constructed in Osage County, Oklahoma. The cases did not relate to eagles and construction continued because the cases were resolved in favor of the wind company.

Comment: The Service has the ability to regulate the wind industry, including influencing siting. For example, if the Service recommended that a project not be placed at a particular site due to high risks to federally protected species, but the developer ignored the recommendation or failed to obtain appropriate permits, then the Service could subject that facility to enhanced scrutiny, including independent monitoring of fatalities and/or unannounced visits by law enforcement. The developer could also be warned that, if protected species are killed, the Service will refer the case to the Justice Department and request prosecution to the greatest extent of the law, including the possibility of temporary or permanent shut down.

Comment: Proper siting for wind energy projects and adequate protection for eagles and migratory birds must take a higher priority. There should be no siting of wind turbines in eagle breeding, nesting, and migratory areas under any circumstances. While more stringent and responsible guidelines on proper siting may be more difficult and costly, we contend that this is an instance where the federal government and the Service must stand firm and defend our eagle populations.

Comment: The Service is wrong in asserting that it lacks any authority to ''prohibit development in areas that are important to eagles,'' and that the most it can do, is ''recommend'' that a company not build its project in a high-risk site. 18 U.S.C. 371 makes it a crime for any person to conspire ''to commit any offense against the United States.'' The government has relied on this provision to prosecute not only actual ''takings'' in violation of federal wildlife protection laws, but also the predicate actions necessary to bring such takings to fruition. The government need not wait until the actual taking of an eagle, but may undertake appropriate enforcement action to prevent harm to protected wildlife before it occurs.

Response: The Service has been consistent with our message that we focus our resources on investigating and prosecuting individuals and companies that take migratory birds, including eagles, without identifying and implementing all reasonable, prudent, and effective measures to avoid that take. Companies are encouraged to work closely with the Service to identify available protective measures in their avian protection plans when developing project plans, and to implement those measures prior to/during and after construction and operation, including during the siting process. However, if a wind company ignores our advice and develops a project in an area that results in the take of eagles or concerning numbers of other migratory birds or federally protected bats, we can and do investigate and, if appropriate, pursue appropriate enforcement action. The Service and DOJ have taken enforcement action where and when warranted using the enforcement authorities available to them and will continue to do so.

Comment: How is the Service going to find out if protected species have been taken since it relies solely on the regulated industry to volunteer that they have broken the law? The wind energy industry (which is already paying for their own studies) should contribute to a fund that the Service will use to hire independent experts to conduct pre-construction risk studies and post-construction bird and bat mortality studies.

Response: We agree that independent third parties reporting directly to the Service should monitor take under long-term permits, and we have incorporated this requirement into the final regulations.

Comment: The regulations should include a requirement that all baseline and post-construction data on wildlife will be made fully available to the public as soon as possible. Lack of transparency is a pervasive problem. Reports of baseline studies and of impacts monitoring at wind projects are increasingly kept confidential. These data pertain to public trust resources, and should not be kept confidential.

Comment: The Service should establish mechanisms to automatically provide all data and reports, including raw data collected on-site, to the public in real-time and as soon as it is available.

Comment: The Service should require that all monitoring data (reports and raw monitoring data) be submitted electronically to a publicly available database. Federal agencies are moving towards electronic reporting as evidenced by the Environmental Protection Agency's (EPA's) ''Next Generation Compliance'' initiative. The Service should develop a public electronic portal/database from which it can track permit compliance, authorize take across populations, and publish proposed and final permitting decisions. This portal would allow stakeholders and regulators to quickly search permits and quickly access all available

monitoring reports and 5-year reviews. This approach would not only facilitate transparency but also provide a valuable tool for its staff to track permit compliance.''

Response: The permit regulations already contained the provision that all mortality data will be available to the public prior to this rulemaking. We will post cumulative reported mortality data that is summarized to a state and flyway level on a Web site that can be viewed by the general public. We will consider posting pre-construction (or pre-permitting) data that we require as part of the permit application for projects that receive eagle take permits.

Comment: The proposed rule is focused on eagle breeding populations; however, the eagles killed in wind resource areas are not necessarily participants in breeding populations at the times of their deaths.

Response: The proposed rule did not focus on breeding populations, and in fact one aspect of the proposal, to adopt Flyways rather than maintain the current EMUs, was introduced to better account for non-breeding season movements. The Service's population size estimates, sustainable take rate estimates, and take limits all apply to eagles across all age classes, both sexes, and throughout the year. Even the LAP analysis, which does focus heavily on breeding eagle densities, is not intended to only be protective of breeding populations, as explained in the Status Report on page 27.

Comment: The Service should provide more clarity and transparency concerning data collected concerning causes of eagle mortality in the United States. As the agency responsible for the National Eagle Repository (NER), the Service is in a unique position to obtain, track, and disclose data surrounding eagles being sent to the repository. Disclosure of these data would provide a necessary starting point to check the accuracy of Service priorities regarding eagle mortality in the United States.

Comment: Tribes should have access to eagle injury and death reporting related to their historic reservation areas to provide for better collaboration regarding eagle incidents. Eagle injury and death incidents should be coordinated with tribal eagle research facilities as a collaborative measure to ensure improved data and research related to wind turbine impacts.

Response: The Service is in the process of developing a database to centralize and grow the dataset on injury and mortality incidents involving eagles and other birds across the nation. This will include data on any eagles recovered by, reported to, or delivered to the Service and/or any partners who data share with the Service, and will include eagles that go on to be sent to the NER. The database is still being populated with a number of historical records and prepared for use by others outside of the Service, but is anticipated to be fully functional by the end of 2017. Once the database is populated and fully operational, we do anticipate that some level of information will be made publicly available, along with information on the role these data play in helping the agency address and research impacts to eagles and other birds. It is important to note that the Service will not be depending solely on the data collected in this database to accurately depict the relative causes of eagle and other bird mortality across the landscape. While some of the data collected in the database should help to inform these questions, there are targeted, structured studies that are more useful for this purpose. A list summarizing these studies is available upon request, but a good example is a study the Service is conducting that involves using the fates of a sample of satellite-tagged eagles to estimate the importance of different mortality factors, as described in the Status Report. We note that many Native American tribes have been active participants and collaborators in that study, and that collaboration has greatly improved the extent and scientific quality of the findings.

Comments: The Service has stated that: ''The current regulations provide that eagle mortality reports from permitted facilities will be available to the public. We will also release mortality data on other migratory birds if we receive that data as a condition of the permit, provided no exemptions of the FOIA (5 U.S.C. 552) apply to such a release. If we receive mortality data on a voluntary basis and we conclude it is commercial information, it may be subject to Exemption 4 of the FOIA, which prevents disclosure of voluntarily submitted commercial information when that information is privileged or confidential.'' That statement strongly suggests that the Service will accede to the wishes of companies that desire to shield from the public their impacts on public trust resources—which is hardly consistent with the purposes of the Eagle Act, MBTA, or FOIA. Any wind energy company could declare that disclosure of eagle kill data could hurt its bottom line or is somehow ''confidential'' business information, with the result that virtually all eagle mortality data will likely continue to remain unavailable to the public and concerned conservation organizations.

Response: Under the FOIA's Exemption 4, the Service independently determines whether submitted data is commercial information not subject to disclosure (confidential business information), whether or not it is marked as such by the submitter. A submitter cannot simply insulate information from disclosure under FOIA by marking it as privileged or confidential and expect the Service to accede without an independent analysis. Also, there is a distinction between ''voluntarily submitted'' records and records that are required to be submitted, and in the language quoted by the commenter, we were talking about other birds in addition to eagles. Under eagle take permits, submission of eagle mortality information is not voluntary, and our regulations, both current and those made final with this rule, require data on permitted eagle mortality to be publicly available.

Comment: While tribal members are required to apply for and receive individual permits from the Service to even possess eagle feather or parts—despite the Constitutional rights and religious freedoms of tribal people that have long been acknowledged in the law—the Service intends to issue permits for lethal take of eagles to the wind industry for up to a 30-year term, not to protect eagles as the Service now suggests, but rather to facilitate a purely commercial activity by wind developers. The requirement that permits for traditional religious use of tribal members be renewed annually imposes administrative and cost burdens on the practice of religion, as well as on the Service's limited resources. The Service should consider issuing take permits for Native American religious use in perpetuity, or at a minimum for the 30-year term the Service proposes for non-religious incidental take. The inequities between the durations of these two permits warrant staying the final incidental take permit regulations until the Service can address this very serious question.

Response: We are aware that the 1-year permit duration for permits to take eagles for religious use may impose an unnecessary burden on some tribes, and we are considering revisions to those permit regulations to address a variety of issues, including the permit duration. We will consult with tribal governments before proposing any revisions.

Comment: The proposal lacks meaningful or specific guidance as to how the Service will conduct tribal consultation with potentially affected

Indian tribes on a project-by-project basis when the Service receives permit applications. There is no assurance the Service will engage in proper consultation with affected Indian tribes. Tribes are likely to be cut out of the permitting process, depriving the Service of valuable traditional ecological knowledge and tribal data about the historic and current presence of eagles in the area.

Response: Where issuance of a permit has the potential to affect Native American tribes, we will notify the potentially affected tribes and provide them with the opportunity to consult. If tribes have valuable traditional ecological knowledge they will share, we will welcome that information. The Service relies on a numerous guidance documents to inform how it consults with tribes, including Executive Orders; Presidential memoranda; DOI Secretary's Orders; and policies of the DOJ, DOI, and the Service. We do not see any advantage to tribes of incorporating all this guidance into the eagle permit regulations, and the result would be either a repetition of information already provided or a summarized (and, therefore, more generalized and less helpful) version of the existing authorities and guidance. Further, as with any federal action warranting tribal consultation, the specific circumstances of the actions will affect the process and parameters of the consultations. Additionally, individual tribes have different preferences for how they wish the consultation process to proceed. For all these reasons, we did not address specific protocols for consultation with tribes.

Comment: The Service should mandate that each permit application identify affected tribes in the requisite eagle conservation plan. Consultation with tribes should occur at every stage of the permitting process. The regulations should ensure that affected tribes receive notice by sending a copy of each eagle take permit application to tribes. If this is not feasible due to legal, confidentiality, or other concerns, tribes should at least receive notice of an application and information necessary to allow for effective and meaningful consultation. Also, affected tribes should be included in the NEPA analysis of each permit. To ensure increased participation and input by tribes in the NEPA process, affected tribes should be invited to serve as cooperating agencies under NEPA. Further, the Service should send a copy of an eagle take permit to all affected tribes upon the issuance of that permit.

Comment: Tribes that will be affected by eagle take authorized under a particular permit must be identified and contacted to facilitate participation in the permit decision-making process. The Service should cast the widest net possible to identify affected tribes, which the regulations should broadly define to include: (1) All tribes with an interest in eagles in the vicinity of a wind energy project; or (2) all tribes that may have interest in eagles within the relevant flyway.

Response: We maintain our commitment to consulting with interested tribes as early as possible in the permitting process when issuance or review of individual permits may affect a tribe's traditional activities, practices, or beliefs. We do not think it is appropriate to require a permit applicant to identify potentially affected tribes. Instead, it is incumbent on the Service to make that determination. Thus, we will continue to rely on our trust relationship and open communication with each federally recognized tribe to help us determine when a project may affect tribal interests. Because of the myriad differences in the interests of federally recognized tribes regarding eagles, we do not find it appropriate to limit or circumscribe consultation with individual tribes by outlining a more specific framework for the consultation process. Each consultation will depend on the specific needs and concerns of the affected tribe. In some cases, it may be appropriate to consult with a tribe regarding its interest in projects occurring in a region or flyway. In other cases, it may be appropriate for a tribe to act as a cooperating agency for the NEPA process for an eagle permit. Regardless of any consultation process, the effects of an eagle permit on tribal cultural, religious, or socioeconomic interests will be analyzed in the appropriate NEPA document for that permit.

Comment: The Service should clarify that projects that attempted in good faith to comply with eagle take regulations, especially those that also applied for permits but were unable to obtain a permit due to difficulties inherent in the current permit program, should not be required to undergo additional mitigation prior to being issued a take permit under the new regulations. Consistent with the template eagle settlement agreement framework, the Service should clarify in the eagle permit program that not all such projects will need to enter into a settlement agreement prior to being granted a permit; instead, the Service will, in determining whether prior unpermitted take requires any additional actions, take into consideration the nature, circumstances, extent, and gravity of the acts with respect to the degree of culpability and cooperation, history of noncompliance, levels of past take, and efforts to reduce take.

Comment: The proposed rule implies that applicants would need to take corrective actions and/or make payments for all takes over the life of the project, which, for transmission line providers, may have been in operation since the early 1900s. It is unreasonable and ineffective to require that those seeking a voluntary permit must ''settle up.'' Voluntary applicants would then need to incriminate themselves to obtain an eagle permit, creating a strong disincentive to seek permits.

Comment: The Service should reconsider its position that applicants may be required to address past take by entering a settlement agreement; why does historic take need to be taken into account now considering that take occurring prior to 2009 is already reflected in the bald and golden eagle population status?

Response: A permit can be issued without resolving unauthorized past eagle take; however, the applicant continues to be subject to an enforcement action at any time for unpermitted prior take of eagles. Such decisions will be made on a case-by-case basis considering the totality of the circumstances. Project proponents have been encouraged to consult with the Service early and often to avoid and mitigate migratory bird and eagle take to the extent practicable, and to apply for an eagle take permit where take cannot be avoided. The Service's goal has been to work closely with project developers to ensure unlawful (unpermitted) take does not occur. However, many entities have chosen to avoid the Service's involvement all together, or only engage with the Service after eagles were killed and a law enforcement investigation began. A determination by the Service whether to pursue criminal or civil enforcement of prohibited eagle take and, if so, whether it is appropriate to resolve any such enforcement through a settlement will consider the conduct of a company in siting and operating projects. Settlement agreements may be appropriate under either the criminal or civil provisions of the Eagle Act. Finally, in response to the last comment, the statute of limitations for criminal and civil enforcement actions is five years and we would not expect enforcement of take prior to 2009.

Comment: In the original 2009 rulemaking, existing projects were

considered part of the baseline and were not required to implement any additional mitigation requirement for take when obtaining a permit. The Service should consider a similar approach here for existing projects that have already invested significant resources in their projects and are meeting the recommended measures outlined in the Wind Energy Guidelines (WEG) and ECPG. Similar to the analysis for historical tribal take for religious use, the Service should acknowledge that take from existing infrastructure is part of the baseline. Authorization of such take should not affect take limits established by the Service. Many existing power line retrofit programs are improving the baseline condition by reducing mortalities.

Response: Ongoing incidental take that has been occurring on a relatively steady basis since before 2009 is part of the baseline and therefore does not require offsetting compensatory mitigation. The Service will take into consideration the conservation measures already in place in developing permit conditions for these sources of take.

Comment: We agree with the Service's decision to decline to require the following measures at wind energy projects: Increase in frequency of turbine site inspection to search for physical evidence of mortality/injury event; development and employment of video surveillance and other technologies (impact alarms); and/or providing onsite personnel to facilitate monitoring of larger wind farms. These practices are clearly not demonstrated, effective best management practices.

Response: We appreciate this opportunity to clarify our position. We have not made any final decisions about the use of such measures; we merely noted that they have not yet been shown to be effective.

Comment: The standard language on permits stating that the authorization granted is not valid unless the permittee is in compliance with all other federal, tribal, state, and local laws and regulations is concerning. The language creates the result that some federal permits could be of little value due to state restrictions on issuing incidental take permits for ''fully protected'' species, such as in California. The Service should consider alternative language that would state that the applicant is responsible for ensuring compliance with other federal, state, and local law.

Comment: Entities seeking a federal permit to take bald or golden eagles may not be able to obtain a state-level permit to be in compliance with state laws. This could potentially put the state fish and wildlife agencies in the position of holding up the issuance of a federal permit or revocation of a permit, due to the lack of authority or ability to issue a state-level permit. The regulations should be revised to include a framework or pathway within the permit structure that requires coordination between the Service region, the state fish and wildlife agency, and the applicant to discuss issuance of any state permits. This will be imperative in states where there is no authority or process to issue a state-level permit to reduce the potential conflict between the state agency and the permit applicant.

Comment: The provision that permits can be issued to or valid only for ''otherwise lawful'' activities should be removed. It is built into the ESA statutory language, but is not present in the Eagle Act. The concept under both ESA programs and the Eagle Act has been misconstrued and inappropriately applied. Specifically, it can cause confusion, leading to delays and to occasional litigation over permit processing and issuance.

Response: We have revised the language that said the federal Eagle Act authorization is not valid if a permittee is not in compliance with the laws and regulations of other jurisdictions. The new language states: ''You are responsible for ensuring that the permitted activity is in compliance with all Federal, tribal, State, and local laws and regulations applicable to eagles'' (§ 22.26(c)(11)). When seeking a federal permit, persons should do their due diligence to determine whether bald and golden eagles are protected under other laws and whether their action may require additional authorizations. We will defer to state, tribal, and local authorities' interpretation of their own laws and regulations and will continue to work closely with those entities in providing any requested assistance in enforcing non-federal laws and regulations.

Comment: The timeframes associated with processing a permit application were initially underestimated. Only one eagle permit has been issued by the Service at the time of this letter. The final regulations should contain processing timeframes.

Response: The Service has issued over 400 permits under the 2009 permit regulations. The false assertion that we have issued only one permit has been made repeatedly by one industry for which we have issued only one permit. We are not including permit issuance timeframes in the regulations because the time it takes to issue a permit varies enormously depending on the scale and complexity of the activity that will result in take, the need to prepare an analysis under NEPA, the quality and completeness of the data and other information provided by the applicant, and many other factors.

Comment: We recommend more realistic penalties for violations be instituted. The Service should review and address enforcement actions and measures in the context of eagle take violations (under both the MBTA and the Eagle Act). Presently, it appears that resources are inadequate for enforcement in the field, as well as a reticence for the Service and the courts to prosecute violators.

Response: The Service, as part of DOI, is an agency in the Executive Branch of government. Civil and criminal penalties tied to federal laws are set in statute and those statutes are set by the Legislative Branch of government (Congress). However, in 2015 Congress mandated that federal agencies update penalties for civil violations of statutes they are responsible for enforcing. The Federal Civil Penalties Inflation Adjustment Act Improvements Act of 2015 requires agencies to adjust the level of civil monetary penalties and to make subsequent annual adjustments for inflation. *See* Public Law 114–74, 701, 129 Stat. 584. The Service subsequently updated civil penalty amounts for all statutes it enforces, including the Eagle Act. *See* 81 FR 41862 (June 28, 2016). The maximum civil penalty under the Eagle Act increased from $5,000 to $12,500 for any violation occurring after July 28, 2016, and the new penalty will be adjusted annually for inflation. *See* 50 CFR 11.33 & 16 U.S.C. 668(b).

When issues of take are brought to the attention of the Service, they become an investigative priority for the Service. If it appears that the take violated federal law, the results of the investigation are brought to the attention of either the DOJ or DOI's Office of the Solicitor, for review and criminal or civil prosecution. The DOJ decides, in consultation with the Service and the Office of the Solicitor, whether or not to prosecute violations of federal law.

Comment: In the proposed rule, the Service provided a response to comments that implies requiring a Bird and Bat Conservation Strategy (BBCS) is consistent with its regulations: A BBCS is a vehicle created by the 2012 land-based WEG. Requiring a BBCS contradicts the voluntary nature of the WEG, and also contradicts the WEG-created concept of the BBCS. The Service should clarify in the preamble

to the final rule that a BBCS (or collection of documents that serve the function of a BBCS) is voluntary.

Response: Preparation of a BBCS is voluntary under the WEG. Preparation of an eagle conservation plan is voluntary under the ECPG. Neither the WEG nor the ECPG confers the take authorization necessary to shield an entity from enforcement for prohibited take under the Eagle Act. A permit is the necessary mechanism to confer the authorization needed to take eagles, and permits require avoidance and minimization measures. Some applications for eagle permits (*e.g.,* for most wind energy facilities and other projects that are large-scale and have the potential for significant or ongoing impacts) will require essentially all the information and commitments that are generally found in a BBCS. In those cases, the compilation of information submitted need not be referred to as a ''Bird and Bat Conservation Strategy'' (particularly if take of bats is not likely) or an eagle conservation plan, but whatever it is called does not change the requirement that certain information necessary for the Service to determine that the applicant will undertake appropriate avoidance and minimization measures must be submitted by the applicant.

Comment: The Service should clearly define for its staff that the scope of the NEPA analysis should only include an analysis of the environmental effects of the issuance of an eagle permit and its associated effects. As applying for the permit is voluntary, the general siting, construction, and operation of a project should fall outside of the typical NEPA analysis.

Response: We agree that the scope of the NEPA analysis should include only an analysis of the environmental effects of the issuance of an eagle permit and its associated effects, including the effects of mitigation measures. Because nearly all of the environmental impacts associated with issuance of an eagle permit relate to eagles, the analysis already included for these species should already be covered by the PEIS for the majority of permits. Among the exceptions would be most cases where the 5% LAP take limit is exceeded and whenever there exist extraordinary circumstances that require an exception to a categorical exclusion as defined under NEPA. As such, any project-specific NEPA analysis should truly be circumscribed, as a majority of the necessary analysis has already been covered. The impacts of construction and operation may be part of the impacts analysis to the degree that the permit covers the effects of those activities, including the mitigation for the permit. Thus, the environmental effects of any permit conditions and any modifications to the proposed construction or operation of the project triggered by the permit review and issuance process should be analyzed as part of the NEPA process. We also note that, although applying for a permit is voluntary in nature, take of federally protected species such as eagles is a violation of federal law unless that take has been authorized under a permit or regulation.

Comment: The Service invokes the Eagle Act statutory language that refers to the ''protection of . . . other interests in any particular locality'' as the foundation for its proposed regulation. However, promotion of a national renewable energy industry is not an ''interest'' that relates to a ''particular locality.''

Response: The fact that the permit program overall may enhance a national interest does not mean it violates the Eagle Act. Individual permits are not being issued to a national interest. As a comparison, preservation of eagles is also a national interest, and we can issue a permit that would benefit eagles in any particularly locality. In fact, a specific town, city, county, or set of coordinates at which one or more wind turbines is located would constitute a ''locality,'' which accurately reflects the scale at which the Service issues individual permits.

Comment: The language relating to ''resource development and recovery operations'' indicates that, to the extent Congress considered that the Service could use incidental take permits issued under the Eagle Act as a tool to promote a national industry, the agency's authority to issue them is specifically limited to ''the taking of golden eagle nests.''

Response: This comment confuses two different provisions of the Eagle Act that were established by Congress in separate amendments to the Act, one in 1962 (''for the protection . . . of agricultural or other interests in any particular locality'' (Pub. L. 87–884, October 24, 1962)), and one in 1978 (''the Secretary of the Interior, pursuant to such regulations as [s]he may prescribe, may permit the taking of golden eagle nests which interfere with resource development or recovery operations'' (Pub. L. 95–616, November 8, 1978)). The two clauses provide the Secretary authority to issue permits for different activities and are separated by multiple clauses addressing separate types of entities and interests that may receive permits.

Comment: The proposed regulation is inconsistent with the 1916 convention with Canada aimed at conservation of migratory birds and its 1995 protocol (''U.S.-Canada Convention''). Article II.3 of the Convention specifies that ''the taking of migratory birds may be allowed at any time of the year for scientific, educational, propagative, or other specific purposes consistent with the conservation principles of th[e] Convention.'' However, the rule is not aimed at advancing ''scientific,'' ''educational,'' or ''propagative'' purposes. Also, none of the conservation principles listed in the Convention includes promotion of wind energy or any efforts aimed at addressing climate change.

Response: This regulation does not ''promote'' wind energy; it sets forth a suite of new and amended provisions to increase protection of eagles and streamline the permitting process to encourage any project proponent that may take eagles to apply for permits and thereby implement conservation measures to reduce and offset projected take of eagles that otherwise would not be implemented. The regulatory amendments are consistent with the preservation of eagles under the Eagle Act, which is a standard that potentially provides more protection to eagles than the MBTA or any of its underlying treaties. Moreover, the Canada Convention does not prohibit the Service from authorizing incidental take of eagles or other migratory birds by industrial activities. As an initial matter, the Canada Convention itself does not include eagles in the list of bird species and families it applies to; the treaty with Mexico covers the avian family that includes eagles, and the treaty with Russia specifically includes bald and golden eagles. Second, as the commenter notes, the Canada Convention, as amended by the 1995 protocol, authorizes the parties to allow the taking of migratory birds for ''other specific purposes consistent with the conservation principles of this Convention.'' The 1995 protocol called for a comprehensive approach to the conservation and management of migratory birds, outlining several conservation principles and the means to pursue those principles, including monitoring, regulation, and enforcement. *See* Article II. Several court cases have confirmed the Service's authority to regulate and enforce the MBTA's take prohibitions in the context of incidental take (see, *e.g., United States* v. *FMC Corp.,* 572 F.2d 902 (2d. Cir. 1978) (holding that it is appropriate for the Service to use enforcement

discretion to police activities that incidentally take migratory birds); *Publ. Employees for Envtl. Responsibility* v. *Hopper,* 827 F.3d 1077, 1088, n. 11 (D.C. Cir. 2016) (noting that an offshore wind facility could apply for a permit to cover its activities likely to cause incidental take)). Third, Congress enacted legislation directing the Service to specifically authorize incidental take caused by military readiness activities, signifying that Congress both interpreted the MBTA to otherwise prohibit incidental take and viewed the incidental take authorization as consistent with the underlying treaties. *See* Public Law 107–314, 315, 116 Stat. 2458 (2002); and 50 CFR 21.15.

Comment: If the Service actually believes any additional anthropogenic mortality cannot be sustained by golden eagles, how can they presently be giving out a permit for the take of 40 nestlings by the Zuni Tribe? The Zuni Tribe has been getting a permit since 1987; that is a long track record of very local mortality.

Response: The permit referenced by this commenter is actually issued to the Hopi, not the Zuni, Tribe. Region 2 of the Service has fully analyzed the effects of this permit in an April 2013 environmental assessment (U.S. Fish and Wildlife Service 2013b). That document found the actual take, which averages around 23 annually, is biologically sustainable under the Service's management objective for golden eagles. It is also important to recognize that the Hopi take of golden eagles pre-dates all other forms of recorded anthropogenic mortality and is a protected activity under the Religious Freedom Restoration Act (42 U.S.C. 2000bb *et seq.*). The Service assigned priority over all but emergency take of eagles to Indian religious take in the 2009 Eagle Rule; thus the Service has an obligation to reduce other forms of more recently instituted anthropogenic take before it impacts the Hopi by reducing their take.

Comment: The regulations should include an explanation of how the Service intends to implement the United Nations Declaration on the Rights of Indigenous People (''UN DRIP'') relative to the issuance of 30-year take permits for eagles. Relevant provisions of the UN DRIP that should have been discussed include, among other things, the impact of the following Articles on the Service's take regulations: Article 19 (requiring ''free, prior and informed consent'' of indigenous peoples where the United States adopts or implements legislative or administrative measures which may affect them); Article 24 (clarifying, inter alia, that indigenous peoples have ''the right to their traditional medicines and to maintain their health practices, including the conservation of their vital medicinal plants, animals and minerals''); and Article 25 (emphasizing the right of indigenous peoples to ''maintain and strengthen their distinctive spiritual relationship with their traditionally owned or otherwise occupied and used lands, territories, waters and coastal seas and other resources'').

Response: The United States did not originally vote in favor of the United Nations Declaration on the Rights of Indigenous Peoples in 2007, but in 2010, President Obama announced U.S. support for the Declaration by Presidential Proclamation while noting that the Declaration is not legally binding or a statement of current international law (see Announcement of United States Support for the United Nations Declaration on the Rights of Indigenous Peoples, U.S. Dept. of State (2010), available at: *http://www.state.gov/documents/organization/184099.pdf*). The Service will continue to consult with federally recognized tribes in the spirit of the Declaration when any potential authorization of eagle take may affect tribal interests, consistent with the Presidential Proclamation and the Service's Native American Policy at 510 FW 1. The **Federal Register** publication of 50 CFR 22.26 in 2009 sets forth our policy with respect to consultation and NHPA compliance when issuing permits (74 FR 46836, September 11, 2009, pp. 46844, 46873, 46874).

Comment: The rule needs more clarity as to when a permit is required. For example, should items such as the distance from a known natal area, significant presence of eagles based on telemetry data or similar measures, or the density of eagles in the immediate vicinity of the proposed project be made into clear triggers for consultation? Furthermore, there is no specific guidance as to the type of projects that may need to apply. Would, for example, a 10- to 12-story building in a valley with minimal documented flyovers be treated the same as the conversion of a small jeep road to a paved thoroughfare? If the newly paved road brings significant and ongoing human disturbance to a relatively pristine location in close proximity (say within 15 miles) of known eagle nests or natal areas, would both have the same consultation need?

Response: A permit is required to be in compliance with the Eagle Act if take of an eagle occurs. It is difficult to predict with certainty exactly what precise circumstances will result in an eagle being taken. However, we have developed guidance documents to help people understand when their activities may take eagles. Guidance for how to avoid disturbance of bald eagles can be found in our 2007 National Bald Eagle Management Guidelines. It is important to note that some of the recommended distance buffers in those guidelines should be increased in more open and less forested landscapes. We are working on official guidance for avoiding disturbance of golden eagles.

Comment: Projects with eagle permit applications that have been in process prior to release of the final regulations should not be subject to new rule provisions unless an applicant volunteers to incorporate the new provisions. Such changes would significantly extend the time to provide project information, increase Service staff time, drive up costs further, delay permit processing, and adversely affect project financing very late in the financing process. These applications should be considered first in line for the purposes of consideration of the LAP threshold. Many of the sites did not perform 2 years of preconstruction eagle use monitoring because they believe they are low risk. If these rules are finalized, they should not be required to perform additional monitoring.

Response: The final regulations contain provisions that allow applicants to obtain coverage under all of the provisions of the prior regulations if they submit complete applications satisfying all of the requirements of those regulations within 6 months of the effective date of this final rule. However, with respect to one of the examples used by the commenter, we note that the Service guidance since 2011 has recommended 2 or more years of pre-construction eagle surveys, so any prospective wind projects conceived since then should have been aware of this.

Comment: We believe additional clarification is needed regarding whether the proposed rule is retroactive.

Response: The regulations are not retroactive, and we are incorporating a 6-month ''grandfathering'' period after the effective date of this rule (see **DATES,** above, and § 22.26(i), below) wherein applicants (persons and entities who have already submitted applications) and project proponents who are in the process of developing permit applications can choose whether to apply (or re-apply) to be permitted under all the provisions of the 2009 regulations or all the provisions of these final regulations.

Comment: Existing HCPs that include golden eagle coverage should be ''grandfathered'' in without fear of these proposed regulations being interpreted to undermine the HCP take authorization by imposing additional mitigation requirements. These HCPs were designed to assure permittees there would be ''no surprises,'' that they were not committing to conservation measures, only to have the rules changed on them part way into the permit term. The final eagle permit rule must exempt from the final rule any eagle ESA incidental take permits whose applications have been submitted prior to the effective date of the final rule. The regulations should also exempt Natural Resource Community Plans and HCPs that address eagles in anticipation of obtaining ESA incidental take permits.

Response: In 2008, we issued a final rule addressing incidental take authorization under the ESA and Eagle Act (73 FR 29075, May 20, 2008). This rule established regulations under 50 CFR 22.11 to provide take authorization under the Eagle Act to ESA section 10(a)(1)(B) permittees, where bald or golden eagles are included as covered species, as long as the permittee is in full compliance with the terms and conditions of the ESA permit. Compliance with the terms and conditions of the permit includes not exceeding the amount of incidental take that was authorized. Failure to abide by the ESA section 10 permit requirements that pertain to eagles may, however, potentially void the Eagle Act take authorization for these permits, and result in permit revocation. In addition, the 2008 rule included a provision clarifying the criterion for permit revocation for eagles: Whether the activities covered under the permit are compatible with the preservation of the bald or golden eagle, instead of the criterion set forth in 16 U.S.C. 1539(a)(2)(B)(iv). For ESA permits already in effect, the conservation measures required to cover bald and golden eagles under previously issued ESA incidental take permits were deemed to be compatible with the conservation standards of the Eagle Act. This final rule does not modify those 2008 regulations. Thus, the terms and conditions of existing ESA section 10 permits where eagles were included as covered species, and where the permittee is in compliance with the conditions of ESA permit, are not affected by this rulemaking. In contrast, ESA incidental take authorizations for eagles that are not already permitted are subject to the standards of permits issued under the Eagle Act incidental take permit regulations, due to the Eagle Act requirement that any permit issued must be ''compatible with the preservation of eagles'' and the Service's 2009 interpretation and application of that preservation standard under the Eagle Act. On May 10, 2011, the Service Director issued a memorandum to the Regional Directors clarifying that the terms and conditions of new ESA incidental take permits that cover eagles, including the mitigation requirements, must meet the issuance criteria of the Eagle Act regulations at 50 CFR 22.26. The memorandum reads, in part: ''[T]he Service publically committed through its Finding of No Significant Impact for the new Eagle Act regulations that it will not issue any take permits for golden eagles beyond historically authorized take levels, unless the impacts to golden eagles can be completely offset'' to achieve no net loss to the breeding population. This policy applies to permits issued under the ESA as well as the Eagle Act. If bald or golden eagles are included as covered species in a section 10 permit, the avoidance, minimization, and other mitigation measures in the project description and permit terms and conditions must meet the Eagle Act permit issuance criteria of 50 CFR 22.26.'' Therefore, in order for the Service to confer Eagle Act take coverage through the ESA section 10 permit program, ESA HCPs must meet the Eagle Act standards for permitting, including mitigation requirements. We believe it is appropriate to allow potential applicants who are well along in the planning process to move forward under the existing regulations. Therefore, we are taking a similar approach for potential ESA section 10 applicants as we are for potential Eagle Act permit applicants, in that applicants who submit an ESA section 10 application that includes take coverage for bald or golden eagles within 6 months of the effective date of this rule may choose whether the standards of 50 CFR 22.26 that were in place prior to that effective date will apply to their permits or the standards of these final regulations.

Comment: The Service encourages applicants to include bald and golden eagles as covered species in HCPs developed for incidental take permits under the ESA. The final eagle rule should make clear that Eagle Act permits would satisfy the requirements under the ESA regulations at 50 CFR part 17 for future permittees that are seeking permit coverage for a single project for take of species covered by the ESA and the Eagle Act.

Response: Eagle Act permit coverage that is not conferred under issuance of an ESA section 10(a)(1)(B) incidental take permit associated with an HCP explicitly does not satisfy the requirements under the ESA regulations at 50 CFR part 17 for permit applicants seeking permit coverage for take of species prohibited by the ESA and the Eagle Act. Simply put, an Eagle Act permit issued under 50 CFR 22.26 does not provide take authorization under the ESA.

Comment: Affected tribes should be notified immediately upon receiving notice of a take and invited to take culturally appropriate action with respect to eagle remains with which the tribe has a geophysical association.

Response: Regarding allowing affected tribes to take culturally appropriate action with respect to remains of eagles taken under permits, much depends on what those cultural practices are. For example, we cannot authorize tribal rites on private land, and we also will not allow tribes to take direct possession of the eagle remains. We understand the desire of some tribes to retain eagles found on or near Indian lands; however, to maintain a fair and equitable distribution of eagle feathers to all federally recognized tribes, the NER must fill orders on a first-come, first-served basis, and require that all usable eagles be sent to the NER for distribution in this manner. Any eagles diverted from coming to the NER would decrease the number of eagles available to other tribal members, and may unfairly impact some tribes.

Comment: Proposed new standards for ''required determinations'' found at 50 CFR 22.26(f)(2)–(8) are so vague as to render the refusal of the Service to issue a permit wholly discretionary, and unreviewable by judicial authority. A protected local interest such as a utility must be reasonably allowed to receive a permit in order to meet the statutory objective of continuing its activity without fear of enforcement. While certain simple, objective, and inexpensive criteria are appropriate, the proposed criteria are generally vague or overreaching to the extent of flouting the statutory purpose of the permit program for protected local interests. Any protected interest should not have to satisfy the population requirement because the statute mandates that a permit program must ''permit the taking of such eagles *for the protection of . . . other interests* in a particular locality . . . .'' [emphasis added]. In such instances, the statute clearly requires that protected activities shall be

permitted over the interests of the birds in order for those activities to be conducted without fear of enforcement. [This comment also specifically objected to provisions of § 22.26(f)(2)–(8) related to the LAP, stipulations that permit issuance take into account ongoing criminal or civil actions, and the priority afforded to take to satisfy Native American religious needs.]

Response: We disagree with the commenter that the required determinations in § 22.26(f) are ''generally vague or overreaching to the extent of flouting the statutory purpose of the permit program for protected local interests.'' The preamble to the proposed rule explains most of the criteria added to 50 CFR 22.26(f) in this rulemaking in detail and clarifies how the Service will determine whether an applicant is in compliance. The proposed required determinations are consistent with the statutory purposes of the Eagle Act. As we stated when first promulgating this regulation in 2009, the Service interprets the statutory phrase ''for the protection of . . . other interests in any particular locality'' as enabling us to accommodate a broad spectrum of public and private interests that might incidentally take eagles, as long as we can determine that any authorized take is compatible with the preservation of eagles (see 74 FR 46836, September 11, 2009, p. 46837). We do not agree with the commenter's interpretation that the ''protection of . . . other interests'' language requires the Service to ensure the protection of other interests without balancing those interests with the management and protection of the species the statute was enacted to protect.

The commenter takes issue with the definition of ''LAP,'' referenced in proposed § 22.26(f)(2), as being arbitrary and vague, and the commenter misconstrues the effect of exceeding the LAP threshold as requiring the rejection of a permit application. This required determination does not compel us to reject an application when take in the LAP exceeds 5%; it instead specifies that any take within the limit is compatible with the preservation of eagles. Take above the limit would require further environmental analysis over that conducted in the PEIS for this rule. That analysis might show that no additional action is required for the permit to be compatible with the preservation of eagles, or it may show the take could be compatible with additional action. Examples of such additional actions could be to require implementation of additional compensatory mitigation to offset take above the 5% LAP threshold or, for existing projects within the LAP area, to require measures that reduce the project's take when they seek incidental take permits. Many commenters, in particular state agencies and federally recognized tribes, strongly support the decision to ensure management and protection of not only the national population of bald eagles and golden eagles, but also regional and local populations. The LAP analysis, along with the regulatory requirements contingent upon that analysis, is one of the primary methods by which we can properly manage and adequately protect local eagle populations and ensure that cumulative effects do not become significant.

To the extent the commenter argues that denial of a permit on any of the grounds listed in § 22.26(f) would be unverifiable and arbitrary, the general permit regulations contain review procedures at 50 CFR 13.29 setting forth the administrative remedies an applicant may pursue if a permit application is denied for any reason. These administrative remedies require the issuing officer to state the reasons for permit denial and to describe the evidence used to reach that decision. A permit applicant would also be free to pursue judicial review of a permit denial once all administrative remedies are exhausted.

With regard to proposed § 22.26(f)(8) (§ 22.26(f)(7) in this final rule), which requires the Service to determine, before issuing a permit, that issuance of the permit will not interfere with an ongoing civil or criminal action concerning unpermitted past eagle take at the project, one element of civil and criminal cases is establishing that take of eagles is not permitted, requiring coordination between the Service's law enforcement and migratory bird divisions early in an investigation. Later in the process, court judgments may include a sentencing or probation condition that an eagle take permit be sought; or where settlement negotiations have been successful, settlement agreement often includes a requirement that a company apply for an eagle take permit. Without such a determination, issuance of a permit may in some cases disrupt the ongoing investigation, prosecution, or negotiation process.

Finally, the commenter disagrees that authorization of take for the religious purposes of Indian tribes should be prioritized over activities such as farming or utility development or maintenance. These amendments do not change the relative priority order of religious take and take for other activities. Moreover, we stand by the reasons for originally establishing the priority order set forth in the preamble to the 2009 regulation (74 FR 46836, September 11, 2009).

Comment: Rather than require a permit, the Service should develop best management practices (BMPs) for industries to serve as a tool box from which companies can select and tailor components as necessary to operate under, monitor activities, and voluntarily report any passive ''take.'' Companies can choose either to rely on the guidelines or instead to develop their own internal construction standards that meet or exceed these guidelines. The use of BMPs, coupled with a commitment by the Service to exercise enforcement discretion for situations in which the BMPs did not avoid all impacts to eagles, could be an alternative to permitting. The Service should evaluate an alternative under which *de minimis* levels of passive ''take,'' including at oil and gas facilities, would be explicitly exempted from regulation under the incidental take permitting program. The Service should consider an activity-based programmatic approach similar to that under the Clean Water Act's nationwide permit program. That program covers specific activities that may be used across a number of industry sectors. Similarly, the Service should consider an approach utilizing the permit-by-rule method, which may also improve the approval process for activities that present known hazards and with known and effective mitigation techniques.

Response: The process described in the first comment is exactly how the permit process is designed to work, except under a permit: (1) Enforcement discretion is not necessary because the take is authorized; and (2) compensatory mitigation is required for take of golden eagles to offset the effects of the take. Because of the statutory language of the Eagle Act, the Service cannot exempt any take from regulation, and cannot exempt any bald eagle take from take liability without a permit (16 U.S.C. 668 and 668a). We will consider legal mechanisms for streamlining take authorizations to low-risk or lower impact activities in the future.

Comment: The Service should not postpone redefining the definition of a ''low risk'' project of the eagle permit program in this rulemaking. The effort to establish a low-risk permit category should be a high-priority item for the Service as it is integral to establishing a streamlined permitting process.

Response: We agree that this is a high priority item. In the meantime, the PEIS programmatically analyzes eagle take within certain levels and the effects of complying with compensatory

mitigation requirements to allow the Service to tier from the PEIS when conducting project-level NEPA analyses. The PEIS will cover the analysis of effects to eagles under NEPA if: (1) The project will not take eagles at a rate that exceeds (individually or cumulatively) the take limit of the EMU (unless take is offset); (2) the project does not result in Service authorized take (individually or cumulatively) in excess of 5% of the LAP; and (3) the applicant will mitigate using an approach the Service has already analyzed (*e.g.,* power pole retrofitting), or the applicant agrees to use a Service-approved third-party mitigation program such as a mitigation bank or in-lieu fee program to accomplish any required offset for the authorized mortality. The PEIS, therefore, should streamline the NEPA process for these projects.

Nest Take Permits

Comment: The proposed rule leaves ''home range'' undefined, but it is used in the definition of ''territory'': ''the area that contains one or more eagle nests within the home range of a mated pair of eagles, regardless of whether such nests were built by the current resident pair.''

Response: Home range means the area an animal uses to secure food and shelter, and through which the animal moves on a regular basis.

Comment: The proposed definition of ''eagle nest'' is ambiguous and likely subject to misinterpretation. Using our residential development project as an example, the Service has constructed two manmade experimental platforms in the vicinity of our project with the intent of encouraging golden eagle nesting. The experiment has not been successful. No nests have been built since the platforms were installed more than 3 years ago. Based on the ambiguous language of this definition, however, the experimental platforms themselves could be considered nests if a golden eagle simply lands on, and thereby ''uses'' the platform—which is an assemblage of material—during the breeding season.

Comment: There seems to be ambiguity surrounding the definition of an in-use nest. The proposed rule will allow for removal of an in-use nest prior to egg-laying, yet the definition fails to determine if alternate nests in which the adults regularly perch would also be considered an in-use nest.

Response: The definition of ''eagle nest'' in this rule includes the phrase ''for purposes of reproduction,'' so it does not encompass nest structures that an eagle simply lands on.

Comment: With regard to the proposed definition of ''alternate nest,'' it is unreasonable to assume that a nest is an alternate nest in perpetuity, but this definition assumes that all nests not in use within a nesting territory are, in fact, alternate nests without reference to any time frame. Similarly, the definition makes no reference to the condition of the nest.

Response: There is a great deal of variability as to how long a nest will be unused before eagles return to use it again. Eagles typically build nests where conditions are suitable for raising young relative to other locations. Sometimes those conditions remain relatively steady, sometimes they fluctuate between years, and sometimes they disappear. Even nests in good locations may not be used for many years. As for the condition of nests being the determining factor in whether they should remain protected, eagle nests are not infrequently damaged or partially destroyed by severe weather, but then restored to good condition by the eagles early in the breeding season. We think it is reasonable to err on the side of caution in protecting potentially valuable nests by not providing an arbitrary timeframe for when an eagle nest is no longer considered an eagle nest. At any rate, these regulations provide for a permit process that allows for removal of nests.

Comment: Loss of a nesting territory is far more significant than the take of an individual, as the cumulative reproductive contribution of the pair or territory over time is lost. For this reason, loss of nesting territories should not be permitted unless it can be affirmatively determined that such loss will not have a detrimental effect on the LAP or on a critical subpopulation.

Response: The Service agrees with this comment, and does take into account the effects of territory loss on the eagle management unit and LAP take limits, as described in the Status Report on page 26.

Comment: Allowing removal of eagle nests just because it is outside of the breeding season is short sighted, and ignores the underlying role of adult pairs to annually defend their nests and near nest proximity, so that reproduction can continue in subsequent years, not just in the current nest cycle.

Response: Prohibiting removal of nests outside the breeding season amounts to prohibiting eagle nest removal under any circumstances. It is not realistic to place a total ban on removing eagle nests. As bald eagle populations continue to grow, an increasing number of nests are built in locations that pose safety hazards or severely restrict a landowner's ability to use his or her property. The regulations for permitting eagle nest removal include many safeguards to ensure that nest removal is compatible with the preservation of eagles.

Comment: Established protocols for monitoring throughout the course of nest take permits must be developed, and monitoring must be required by trained and approved independent experts. Monitoring time for nest and incidental take permits as required by permits should be similar to that required by most eagle-nest monitoring programs—a minimum of 2 hours per week by a trained independent monitor.

Response: For nest take permits, as opposed to disturbance permits, monitoring would be required mostly to detect whether the resident pair of eagles nest successfully elsewhere. The level of monitoring will be contingent on the biological significance of the nest site to the eagle population or local (human) community, the ability to identify the pair of eagles that were potentially displaced, the feasibility of monitoring at different levels of intensity, and other case-specific factors.

Comment: The Service should clarify that it is their intention that wind energy projects apply the buffer distances set forth in the National Bald Eagle Management Guidelines to wind farm infrastructure.

Response: The National Bald Eagle Management Guidelines do not include recommended buffer distances between bald eagle nests and wind turbines because the primary concern with turbines is blade strike mortality and not disturbance. With respect to disturbance, many of the other recommendations in the Guidelines would apply to wind turbines during construction and maintenance. However, at this time, we do not have sufficient information to recommend buffer distances between eagle nests and wind turbines to avoid or reduce the likelihood of mortality. More observation is needed before the Service will issue official guidance for distance buffers between eagle nests and wind turbines.

Comment: Without an objective assessment (*i.e.,* not based on nest structures) of what the spatial extent of a specific pair's territory is, there is no way to assess whether or not a nest is within a pair's territory without circular reasoning, and therefore no way to determine if a territory, rather than a nest or set of nests, was abandoned. Only in cases where there is independent observation of the extent of

space use of a specific breeding pair, most likely through telemetry or color-mark observations, will it be possible to assess territory boundaries independently of nests. The Service should provide an objective, operationally defined (*i.e.,* defined in terms of observable characteristics) definition of the spatial extent of an eagle territory or abandon its reliance on availability of a nest ''within the nesting territory'' to assess territory abandonment.

Response: What this commenter is suggesting is not possible. The Service directly addresses this admittedly difficult issue in the Status Report in the following way: ''We recognize that for golden eagles in particular, nesting territories are often occupied by successive generations of individuals. Additionally, for both species, some nesting territories hold more value than others (Millsap et al. 2015, Watts 2015). Moreover, it is often difficult to predict in advance whether an activity will result in loss of a nesting territory, or simply the loss of a nest structure and cause a shift in use to an existing or new alternative nest—which may have little or no consequence to the eagle population (Watts 2015). For these reasons, each instance where loss of a nesting territory is a possible outcome requires additional review on the part of Service biologists. Permitting the loss of high-value nesting territories with a long history of occupancy and production could have greater population-level consequences.''

Comment: The Service has described that in populations with high eagle density, the biological value of a single nest to eagle populations is lower, as productivity in highly saturated eagle populations decreases due to nests being built in less than ideal locations in relation to food sources and increased competition among nesting pairs. Eagle nest-monitoring data by the Florida Fish and Wildlife Conservation Commission do not support this conclusion. The Service should consider data available from state agencies and similar partners when determining biological value of individual nests in order to ensure permitting decisions are evidence-based and consistent with the proposed preservation standard.

Response: There is increasing evidence in raptor populations that high-quality nesting sites are occupied first, and more consistently, than lower quality nesting sites. This factor contributes to what is known as the habitat heterogeneity effect, a biological process whereby overall per capita productivity of a raptor population declines with increasing density of nests because newer territories are in lesser habitats and have lower productivity. This is the basis for the Service's statement, and it is described in more detail in the Status Report on page 6. However, the Service also acknowledges the importance of taking individual circumstances into account, including shifts in prey availability over time that may lead to temporal variation in territory quality.

Comment: The Service refers to ''alternate nests just being built'' as having low biological value. However, in some territories, a newly built nest may have greater biological value than the most recently ''in use'' nest depending on territory-specific factors. We recommend that the Service allow for territory-specific factors to be considered in determining biological value of nests when permitting nest removal.

Response: We fully agree with this comment. Assessing the biological value of nests will include consideration of site-specific factors, including information pertaining to the availability and past use of other nests in the territory.

Comment: The Service should consider the potential for inconsistency in determining and applying ''net benefit'' calculations, similar to the issues raised in the Service's approach for determining compensatory mitigation for permits under the 2009 regulations. The Service should also consider whether the standard for ''net benefit'' incentivizes removal of nests over avoidance and minimization measures, which could accelerate loss of nest territories. If acceptable ''net benefit'' standards for nest removal are relatively low, as compared to the cumulative cost for projects to avoid and minimize, it can be expected that more projects will pursue nest removal permits rather than incidental take permits.

Response: We acknowledge that the net benefit requirement is somewhat vague and could potentially be applied inconsistently. However, we have regular coordination calls between staff who issue eagle permits from the different Service Regional Offices, and the application of this standard to particular permits has been discussed so far for every case where it has been applied. We hope to be able to continue that level of coordination to further consistency in how this provision is applied. We typically will require a disturbance permit rather than a nest removal permit if it is possible for the potential applicant to avoid actual removal of the nest. The regulations prevent the Service from issuing a permit unless we determine there is no practicable alternative to nest removal that would protect the interest to be served.

Comment: We recommend the Service consider options to ensure the persistence of local populations in areas where eagle nests on artificial structures represent a larger percentage of the LAP.

Response: Nests that eagles build on artificial structures fall within the definition of ''eagle nests'' protected under the Eagle Act, the removal of which would require a permit. The LAP cumulative effects analysis, and revised definition of the Eagle Act preservation standard that includes the persistence of local populations, both apply to nest removal permits and are designed to protect local populations even if a large percentage of eagles breed on nests built on artificial structures.

Comment: The proposed regulations would retain the requirement that the Service consider the availability of alternative suitable nesting habitat, but a finding that there is would not be a prerequisite for issuing a permit. We request that the Service reconsider this proposal to remove this requirement and instead require that suitable nesting habitat be present, but not necessarily available, in the area. Removal of this requirement would reduce or eliminate opportunities to apply mitigation measures within the immediate vicinity of the affected area.

Response: The types of conditions that eagles nest in are widely variable. In some circumstances, making nest removal contingent on there being suitable nesting habitat available is not warranted or reasonable. For example, more and more often, bald eagles are nesting in risky infrastructure that does not provide the conditions needed for successfully nesting and fledging of young. Such nests can also present safety hazards and/or unduly restrict people's ability to conduct daily routine activities. The regulations need to provide an option to issue permits for removal of nests that have marginal biological value and also pose problems or hazards to people or eagles, regardless of there being suitable nesting habitat in the vicinity.

Comment: The Service proposes to use 10 consecutive days of continuous absence as a national metric for declaring a nest inactive. This metric should be researched further and should take into consideration activity patterns of the species within the LAP where nest take would occur. There is ample research showing that juvenile bald eagles use their nests up to 45 days after fledging before they migrate, and often

do not return to the nest for periods of more than 10 days.

Response: The metric of 10 consecutive days has been in the regulations for several decades and has proven to be a reasonable timeframe for purposes of both permitting and protection of eagles. If young eagles have left and not returned to a nest over 10 consecutive days, it is reasonable to conclude the nest structure is no longer critical to them and can be removed, assuming other criteria warranting nest removal have been met. We fully recognize that nests might be revisited and used for longer periods of time, but loss of a nest after 10 days of non-use is unlikely to pose a threat to survival of the juveniles.

Comment: The proposed new nest take rules do not give consideration to the loss of habitat that accompanies a nest take in areas with rampant growth and development.

Comment: The regulations should increase protection to the areas surrounding active nests. The proposed rule does not directly address buffers of protection surrounding nests throughout the year. Habitat modification can undermine the viability of that food source, threatening the continued success of the nest. This potential loss of productivity is not accounted for in the permitting framework, yet could have significant impacts on local populations.

Response: The Eagle Act does not provide direct protection to eagle habitat, except for nests themselves. However, our regulations and guidance include a variety of strategies that take habitat into consideration, because habitat is, of course, necessary to preserve eagles. With regard to nest take permits, they can be issued only for specific limited purposes, unless a net benefit to eagles will be provided. The biological value of a nest is closely tied to the value of the surrounding habitat. Thus removal of a high-value nest would require a significant net benefit to eagles. The Service's recommendations for preventing disturbance to nesting bald eagles are in our National Bald Eagle Management Guidelines, including recommended buffer distances for construction and other activities near bald eagle nests. We are in the process of developing comparable guidance for golden eagles.

Comment: The Service should include in the final document a clear decision-making process that includes discreet criteria as to what constitutes an anticipated emergency situation. Permits should be limited to cases where human health or safety is highly likely to be endangered if no action is taken, and there is high confidence that the nest does not contain eggs or young.

Comment: What is the definition of a safety emergency (as used in the context of the proposed rule revision)? How does the Service make this determination? Does the Service intend to gain insight/formal input from other federal agencies (*e.g.,* Federal Aviation Administration, U.S. Department of Agriculture—Animal and Plant Health Inspection Service—Wildlife Services, Federal Highway Administration) that have expertise and/or regulatory authority in specific situations?

Response: We disagree with the suggestion that, unless there is high confidence that no eggs or young are in a nest, the Service cannot issue a permit for the purpose of protecting human or eagle lives. We believe a safety risk to people or eagles should take precedence above leaving eggs or nestlings undisturbed in the nest. In response to the question about what constitutes a safety emergency, the term is defined in the regulations at 50 CFR 22.3 as ''a situation that necessitates immediate action to alleviate a threat of bodily harm to humans or eagles.'' How we will make the determination is a fair question, but it may not be advisable or helpful to codify specifications for what factors must be present because of the risk of excluding circumstances that we failed to consider but which present a serious risk of bodily harm. However, we may develop some relatively broad guidance to assist in making these determinations in the future.

Comment: Under the proposed changes to nest take permits, there is a provision for the Service to waive the requirement that nestlings be transported to a foster nest or permitted rehabilitator in the case of an emergency nest removal. Even in cases where a nest is not near a possible foster nest or rehabilitator, the Service should put forth all efforts to ensure that nestlings are released back into the wild.

Response: The revision makes it possible for the Service to legally authorize the nest removal in a case of emergency (imminent risk to human or eagle safety) even when it is not feasible to place the eggs or young with a rehabilitator. Where it is reasonably possible to do so, the permit will require the eggs or young to be placed with a permitted rehabilitator or other similarly authorized facility.

Comment: We support the Service's position that a minimal level of compensatory mitigation is appropriate when authorizing take of golden eagle nests; however, the Service should clarify that no compensatory mitigation is required when these instances involve bald eagle nests.

Response: Actually, we did not and do not take the position that only a minimal level of compensation is required for take of a golden eagle nest. Our position then and now is that golden eagle nest take permits will be more restrictive in nature, but without including different criteria for the two species in the regulations. Our view is that regulations should not be species-specific; rather, they should address specific conditions that could apply to any of the species they are designed to protect. All golden eagle take permits, except for those authorizing ongoing take occurring prior to 2009, will require offsetting mitigation. The avoidance and minimization requirements in the existing and these regulations are designed to ensure that removal of a nest of either species is the last option. 81 FR 27934, 27961 (May 6, 2016). Regarding bald eagle nests, mitigation will be required if the activity that necessitates the take does not in itself provide a ''net benefit.'' As explained earlier in the preamble of this rule, the mitigation is likely to be minimal for new bald eagle nests established in areas densely populated by eagles, which are more and more typically the nests for which applicants seek nest take permits.

Comment: Eagle nests may be subject to protections of the National Historic Preservation Act (NHPA) due to the status of eagle nests as traditional cultural properties (36 CFR 800.16(I)(1): *Historic property* includes properties of traditional religious and cultural importance to an Indian tribe). Therefore, for nesting sites subject to the NHPA, the Service must comply with the NHPA's section 106 consultation process prior to authorizing an undertaking that could affect eagle nesting sites (36 CFR 800.2(c)(2)(ii) requires consultation with tribes where properties of religious or cultural significance may be affected by a federal undertaking). Consultation with tribal governments regarding nest removal permits is also necessary to determine whether a vacant nest site has or has not been permanently abandoned.

Response: The Service is responsible for compliance with the NHPA and to review all projects that may have the potential to affect historic properties. Traditional cultural properties, and religious and sacred areas, are all elements that might be included within the borders of projects under our review. As we follow the NHPA consultation process, information about such sites will develop that will help inform our decisions. With regard to the

status of the nest, that is, whether it has been used for breeding purposes in recent years or is currently in use, we will rely on any available and reliable source of such information, including through consultation with tribes that have such information.

Comment: The eagle nest take permit regulations should take into account existing practices adopted to address take or removal of eagle and other raptor nests. For example, the Bridger Coal Mine in Wyoming is operated under a permit from the Wyoming Department of Environmental Quality. The mine permit incorporates a raptor mitigation plan that is reviewed by the Service. Under the raptor mitigation plan, if the mine operators locate an inactive (or ''alternate,'' as now defined in the proposed rule) nest in an active mining area, in most cases it may remove the nest as long as a substitute nest is constructed without applying for a separate take permit.

Response: Wyoming's Coal Mine Migratory Bird Plans do not allow removal of eagle nests without a permit, and the mining permit issued by the Wyoming Department of Environmental Quality provides no exemption from Service authorities or permitting processes. The plan addresses when there is a need for a nest permit application and proposed mitigation (which may or may not be the final mitigation approved in the permit as determined by the Service's Migratory Bird Office).

Required Determinations

Regulatory Planning and Review (Executive Orders 12866 and 13563)

Executive Order 12866 provides that the Office of Information and Regulatory Affairs (OIRA) in the Office of Management and Budget will review all significant rules. OIRA has determined that this rule is significant because it may raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in E.O. 12866.

Executive Order 13563 reaffirms the principles of E.O. 12866 while calling for improvements in the nation's regulatory system to promote predictability, to reduce uncertainty, and to use the best, most innovative, and least burdensome tools for achieving regulatory ends. The executive order directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. E.O. 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We have developed this rule in a manner consistent with these requirements.

Regulatory Flexibility Act (5 U.S.C. 601 et seq.)

Under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.,* as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996 (Pub. L. 104–121, 201, 110 Stat. 847)), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effect of the rule on small businesses, small organizations, and small government jurisdictions. However, no regulatory flexibility analysis is required if the head of an agency certifies the rule would not have a significant economic impact on a substantial number of small entities.

SBREFA amended the Regulatory Flexibility Act to require Federal agencies to provide the statement of the factual basis for certifying that a rule would not have a significant economic impact on a substantial number of small entities. Thus, for a regulatory flexibility analysis to be required, impacts must exceed a threshold for ''significant impact'' and a threshold for a ''substantial number of small entities.'' See 5 U.S.C. 605(b). We have examined this rule's potential effects on small entities as required by the Regulatory Flexibility Act and determined that this action will not have a significant economic impact on a substantial number of small entities. This analysis first estimates the number of businesses impacted and then estimates the economic impact of the rule.

To assess the effects of the rule on small entities, we focus on home construction companies, wind energy facilities, and electric transmission companies. Although small, non-commercial wind energy facilities could seek permits, we anticipate that most of the applications for wind energy facilities will be for those that are commercial or utility scale. Although businesses in other business sectors, such as railroads, timber companies, and pipeline companies, could also apply for permits, we anticipate the number of permit applicants in such sectors to be very small, on the order of one or two per year for each such sector.

The U.S. Small Business Administration (SBA) defines a small business as one with annual revenue or employment that meets or is below an established size standard, which is less than 250 employees for ''Wind Electric Power Generation (NAICS 221115), less than 1,000 employees for ''Electric Power Distribution'' (NAICS 221122), less than 500 employees for ''Logging'' (NAICS 113310), less than $36.5 million for ''Construction of Buildings'' (NAICS 236115, 236116, 236117, 236210, and 236220), less than $36.5 million for ''Highway, Street, and Bridge Construction'' (NAICS 237310), less than $15.0 million for ''Support Activities for Rail Transportation'' (NAICS 488210), and less than 1,500 employees for ''Gold Ore Mining'' (NAICS 212221). Table 1 describes the number of businesses within each industry and the estimated percentage of small businesses impacted by this rule.

TABLE 1—DISTRIBUTION OF POTENTIAL IMPACTED BUSINESSES

NAICS code	Description	Total businesses		Small businesses potentially impacted by rule	
		Number of all businesses	Number of small businesses	Number	Percentage
221115	Wind Electric Power Generation	410	402	10	2
221122	Electric Power Distribution	7,547	7,513	<26	<1
113310	Logging	7,908	7,907	1 to 2	<1
236115	New Single-family Housing Construction (Except For-Sale Builders).	30,380	29,469	<26	<1
236116	New Multifamily Housing Construction (except For-Sale Builders).	1,788	1,734	<26	<2

TABLE 1—DISTRIBUTION OF POTENTIAL IMPACTED BUSINESSES—Continued

NAICS code	Description	Total businesses		Small businesses potentially impacted by rule	
		Number of all businesses	Number of small businesses	Number	Percentage
236117	New Housing For-Sale Builders	16,093	15,610	<26	<1
236118	Residential Remodelers	77,855	75,519	<26	<1
236210	Industrial Building Construction	2,622	2,543	<26	<1
236220	Commercial and Institutional Building Construction	35,758	34,685	<26	<1
237310	Highway, Street, and Bridge Construction	8,854	8,588	<26	<1
237990	Other Heavy and Civil Engineering Construction	3,423	3,320	<26	<1
488210	Support Activities for Rail Transportation	1275	613	1 to 2	<1
212221	Gold Ore Mining	214	214	1 to 2	<1

Source: U.S. Census Bureau, 2012 County Business Patterns.

In the first 5 years (2011 through 2015) since the eagle permit regulations at 50 CFR 22.26 and 50 CFR 22.27 were published, the Service has issued 347 standard permits which averages about 70 permits annually. For the 347 standard permits, 131 permits were issued to businesses, 172 permits to Government agencies, and 44 permits to individuals. The average annual distribution was 26 permits to businesses, 34 permits to government, and 9 permits to individuals. Businesses that apply for permits typically include home construction, road construction, and various other construction projects. Thus, the maximum impact to any single construction industry would be less than 26 businesses annually. It is more likely that the permits would be distributed across various construction industries. As a result, less than 1to 2 percent of small businesses in these sectors will be impacted by this rule.

Homeowners have no fee increases except for applications for multiple eagle nest take ($500). Given the number of standard permits issued (44), this rule will not have a significant economic effect on a substantial number of homeowners. Commercial businesses will face higher permit fees under this rule. A commercial business applying for what was a standard permit would have to pay $2,500 (an increase of $2,000). Businesses in the construction industry are defined as small if they have annual revenue less than $36.5 million, yet many construction businesses (38 percent) have revenue less than $250,000. To conservatively estimate the potential impact to commercial businesses applying for standard permits, we utilize $250,000 to depict small businesses' sales. Depending on the type of permit applications submitted by an individual small business, the permit fees will represent 1 to 3 percent of revenue for this size of business. Thus, the changes in standard permit fees will not have a significant economic effect on a substantial number of small businesses in the construction sectors. The changes in permit application processing and amendment fees are shown in Table 2.

Table 2. Change in Permit Fees

	Activity/Requirement	Current Fee	New Fee	Fee Increase
Standard Permits	3-200-71 – Eagle Incidental Take Application	$500	$500 – Non-commercial $2,500 – Commercial	$0 – Non-commercial $2,000 – Commercial
	3–200-72 – application, Eagle Nest Take Application	$500	$500 – Non-commercial $2,500 – Commercial	$0 – Non-commercial $2,000 – Commercial
	3–200-72 – Eagle Multiple Nest Take Application	$1,000*	$Non-commercial5,000	Non-commercial$4,000
	3-200-71– Eagle Incidental Take Amendment	$150	$150 – Non-commercial $500 – Commercial	$0 – Non-commercial $350 – Commercial
	3-200-72 – Eagle Single Nest Take Amendment	$150	$150 – Non-commercial $500 – Commercial	$0 – Non-commercial $350 – Commercial
Programmatic Permits	3-200-71 – Eagle Incidental Take Programmatic Amendment	$1,000	$0	-$1,000
	Eagle Incidental Take – Application Processing Fee	$36,000	$36,000	$0
	§ 22.26(c)(7)(v) – Programmatic Permit reviews every 5 years	$0	$8,000	$8,000

* Programmatic nest take

From 2011 to 2015, we received a total of 37 programmatic permit applications and have issued one programmatic permit thus far. All of the applications except three are for wind energy projects. Two applications were from electric utilities, while one application was from a gold mining operation. We anticipate a greater volume of applications for permits for long-term activities in the future, although we expect the number to increase gradually over time. At the current average rate (7 applications annually), approximately 2 percent of small wind energy businesses apply for permits annually (Table 1). Furthermore, less than 1 percent of small businesses within the electric utility and mining sectors apply for permits (Table 1). Assuming perhaps a ten-fold increase in such permit applications over the foreseeable future, this rule will not impact a substantial number of small entities.

Initial permit application processing fees for long-term permits will not change from the current $36,000. If a permittee requests the programmatic permit to exceed 5 years, then there will be an $8,000 review fee every 5 years to recoup the Service's review costs. With a 5-year maximum permit duration, renewal of a permit would require a $36,000 permit application processing fee, so the $8,000 administration fee reduces costs to small businesses engaged in long-term acitivities. We therefore certify that the rule will not have a significant economic impact on a substantial number of small entities, and no regulatory flexibility analysis is required.

Unfunded Mandates Reform Act

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq.*), we have determined the following:

a. This rule will not ''significantly or uniquely'' affect small governments. A small government agency plan is not required. The regulations changes will not affect small government activities in any significant way.

b. This rule will not produce a Federal mandate of $100 million or greater in any year. It is not a ''significant regulatory action'' under the Unfunded Mandates Reform Act.

Takings

In accordance with E.O. 12630, the rule will not have significant takings implications. This rule does not contain any provisions that could constitute taking of private property. Therefore, a takings implication assessment is not required.

Federalism

This rule will not have sufficient Federalism effects to warrant preparation of a federalism summary impact statement under E.O. 13132. It will not interfere with the States' abilities to manage themselves or their funds. No significant economic impacts are expected to result from the regulations change.

Civil Justice Reform

In accordance with E.O. 12988, the Office of the Solicitor has determined that the rule will not unduly burden the judicial system and meets the requirements of sections 3(a) and 3(b)(2) of the Order.

Paperwork Reduction Act of 1995 (PRA)

This final rule contains a collection of information that we have submitted to the Office of Management and Budget (OMB) for review and approval under the PRA (44 U.S.C. 3501 *et seq.*). After publication of the ''Duration Rule'' in 2013, we included the burden associated with eagle permits in our renewal of OMB Control No. 1018–0022. OMB has reviewed and approved the information collection requirements for

applications, annual reports, and nonhour cost burden associated with eagle permits and assigned OMB Control Number 1018–0022, which expires May 31, 2017. The approval includes long-term (more than 5 years) eagle take permits.

This final rule does not revise the number of responses or total annual burden hours associated with eagle permits. However, we believe the approved estimates for the number of annual responses are high. We will adjust our estimates when we renew OMB Control No. 1018–0022. This final rule:

(1) Establishes an administration fee of $8,000 that each permittee will pay every 5 years to cover the cost of the 5-year permit evaluations. We will not collect this fee until the permittee has had a permit for at least 5 years. We expect that we will not impose this fee until at least 2022.

(2) Changes the application fees associated with some permits.

(3) Requires annual reports. This requirement is approved under OMB Control Number 1018–0022. There are no fees associated with annual reports.

(4) Establishes a new reporting requirement and a new administration fee for permits of over 5 years.

(5) Requires pre- and post-construction monitoring of eagle use of the project area, which may include preparation of an Eagle Conservation Plan, and requires immediate reporting of take of eagles and Threatened and Endangered species.

OMB has not yet approved the information collection requirements associated with this rule. We will announce the approval in a separate notice in the **Federal Register**. When we seek renewal of OMB Control Number 1018–0022, we will incorporate the new hour and nonhour burden into that renewal and discontinue this OMB control number. An agency may not conduct or sponsor and you are not required to respond to a collection of information unless it displays a currently valid OMB control number.

Title: Eagle Take Permits and Fees, 50 CFR 22.

OMB Control Number: 1018–0167 (number assigned by OMB).

Service Form Number(s): 3–200–71, 3–200–72.

Description of Respondents: Individuals and businesses. We expect that the majority of applicants seeking long-term permits will be in the energy production and electrical distribution business.

Respondent's Obligation: Required to obtain or retain a benefit.

Frequency of Collection: On occasion.

The Service inadvertently omitted Table 1 and its burden from the proposed rule. The following Table cites the total burden for this information collection.

TABLE 1—ESTIMATED HOUR AND COST BURDEN FOR LONG TERM EAGLE TAKE PERMITS

Activity/requirement	Annual number of responses	Average completion time per response (hours)	Total annual burden hours	Cost/hour	$ Value of annual burden hours (rounded)
Pre-construction Monitoring Surveys	15	650	9750	$34.26	$334,035
Preparation of Eagle Conservation Plan	15	200	3000	34.26	102,780
Post Construction Monitoring	15	700	10,500	34.26	359,730
Reporting Take of Eagles	10	2	20	34.26	685
Reporting Take of Threatened & Endangered Species	1	2	2	34.26	69
§ 22.26(c)(7)(ii)—*Permit reviews.* At no more than 5 years from the date a permit that exceeds 5 years is issued, and every 5 years thereafter, the permittee compiles and submits to the Service, eagle fatality data or other pertinent information that is site-specific for the project.[9] Footnote 9 may be found in Table 2 Note that the dollar value of the annual burden cost is included in the $8,000 permit 5-year permit review fee	4	8	32	34.26	1,096
Total	60	1562	23,304		798,395

TABLE 2—CHANGES IN NONHOUR BURDEN FEES FOR EAGLE TAKE PERMITS

Activity/requirement	Existing approval (1018–0022)	Current fee	Proposed fee	Total approved nonhour burden cost	Total proposed nonhour burden cost	Difference between 1018–0022 and proposed
3–200–71—application, Eagle Incidental Take—(not programmatic or long-term) [1].	No. of responses and annual burden hours approved under OMB Control No. 1018–0022.	$500 Non-commercial.	$500 Non-commercial.	$12,500 Non-commercial.	$12,500 Non-commercial.	$0 Non-commercial.
	This rule revises fees and nonhour costs.	$500 Commercial.	$2,500 Commercial.	$60,000 Commercial.	$300,000 Commercial.	+$240,000 Commercial.
3–200–72—application, Eagle Nest Take—single nest (formerly "standard") [2].	No. of responses and annual burden hours approved under OMB Control No. 1018–0022.	$500 Non-commercial.	$500 Non-commercial.	$5,000 Non-commercial.	$5,000 Non-commercial.	$0 Non-commercial.
	This rule revises fees and nonhour costs.	$500 Commercial.	$2,500 Commercial.	$10,000 Commercial.	$50,000 Commercial.	+$40,000 Commercial.

TABLE 2—CHANGES IN NONHOUR BURDEN FEES FOR EAGLE TAKE PERMITS—Continued

Activity/requirement	Existing approval (1018–0022)	Current fee	Proposed fee	Total approved nonhour burden cost	Total proposed nonhour burden cost	Difference between 1018–0022 and proposed
3–200–72—application, Eagle Nest Take—multiple nests (formerly "programmatic") [3].	No. of responses and annual burden hours approved under OMB Control No. 1018–0022.	$1,000	$500—Non-commercial.	$0 [3]	$500 Non-commercial.	+$500 Non-commercial.
	This rule revises fees and nonhour costs.	.....	$5,000—Commercial.	.....	$40,000 Commercial.	+$40,000 Commercial.
3–200–71 Eagle Incidental Take Amendment—less than 5 years (formerly "standard" [4].	No. of responses and annual burden hours approved under OMB Control No. 1018–0022.	$150 Non-commercial.	$150—Non-commercial.	$300 Non-commercial.	$300 Non-commercial.	$0 Non-commercial.
	This rule revises fees and nonhour costs.	$150 Commercial.	$500—Commercial.	$2,700 [5] Commercial.	$9,000 Commercial.	+$6,300 Commercial.
3–200–72 Eagle Nest Take Amendment—"Single nest" (formerly "standard") [4].	No. of responses and annual burden hours approved under OMB Control No. 1018–0022.	$150 Non-commercial.	$150—Non-commercial.	$150 Non-commercial.	$150 Non-commercial.	$0 Non-commercial.
	This rule revises fees and nonhour costs.	$150 Commercial.	$500—Commercial.	$600 [6] Commercial.	$2,000 Commercial.	+$1,400 Commercial.
3–200–71 Amendment—Eagle Incidental Take Programmatic.	No. of responses and annual burden hours approved under OMB Control No. 1018–0022.	$1,000 Commercial.	No Fee [7]	$1,000 Commercial.	.....	− $1,000 Commercial.
NEW REPORTING REQUIREMENT AND NEW ADMINISTRATION FEE						
§ 22.26(c)(7)(ii)—*Permit reviews.* At no more than 5 years from the date a permit that exceeds 5 years is issued, and every 5 years thereafter, the permittee compiles and submits to the Service, eagle fatality data or other pertinent information that is site-specific for the project. [9]	No. of responses and annual burden hours shown in Item 12, Table 1.	0	$8,000	0	$32,000	+$32,000
Total	.....	.....	.....	$92,250	$431,450	$359,200.

[1] Approved under 1018–0022—145 annual responses (25 from individuals/households (homeowners) and 120 from the private sector (commercial) totaling 2,320 annual burden hours) (400 burden hours for individuals and 1,920 annual burden hours for private sector); $500 permit fee for both individuals and private sector for a total nonhour burden cost of $72,500. This rule changes the application fees: Homeowner fee would remain $500; private sector fee (commercial) would increase to $2,500. Total for 25 homeowners—$12,500; Total for 125 commercial applicants—$300,000).

[2] Approved under 1018–0022 (standard and programmatic permits were combined)—30 responses (10 from Individuals/homeowners and 20 from private sector (commercial) totaling 480 burden hours (160 hours (individuals) and 320 hours (private sector). Homeowner fee would remain $500; private sector fee (commercial) would increase to $2,500. Total for 10 homeowners—$5,000.; Total for 20 commercial applicants—$50.000).

[3] Approved under 1018–0022 (standard and programmatic permits were combined)—9 responses (1 from Individuals/homeowners (non-commercial) and 8 from private sector (commercial) totaling 360 burden hours (40 hrs (individuals) and 320 hrs (private sector). The approved nonhour burden cost is $0; however, that is an error. The permit application processing fee for programmatic nest take permits under the current regulations is $1,000, so the total current burden cost should be $9,000 (9 responses). Under the rule, the homeowner fee would increase to $500; private sector fee (commercial) would increase to $5,000. Total for 1 homeowner—$500; total for 8 commercial—$40,000.

[4] The amendments for standard non-purposeful eagle take permits and standard eagle nest take permits are combined in the approved collection for a total of 25. Here they are split into 20 eagle incidental take permit amendments and 5 eagle nest take permit amendments.
[5] Two Homeowner, Eighteen Commercial.
[6] One Homeowner; Four Commercial
[7] The amendment fee for long-term programmatic permits is approved under 1018–0022. Under this rule, it is being removed because the costs associated with it would be included under the Administration Fee.
[8] ROCIS would not allow entering negative $1,000 to account for the elimination of fees. Therefore, in ROCIS, the elimination is reflected for the eagle nest take amendment total nonhour cost burden.
[9] This is a new reporting requirement as well as a new Administration Fee and applies only to Commercial permittees. We will not receive any reports or assess the Administration Fee until after a permittee has had a permit for 5 years (earliest probably 2022). We estimate that we will receive 19 responses every 5 years, annualized over the 3-year period of OMB approval results in 4 responses annually. We estimate that each response will take 8 hours, for a total of 32 annual burden hours. We will assess an $8,000 administration fee for each permittee for a total of $32,000. Note: This burden reflects what will be imposed in 5 years. Each 5 years thereafter, the burden and nonhour costs will increase because of the number of permittees holding 5-year or longer term permits.

Estimated Total Hour Burden: 23,304 hours, the total number of new respondents is 60.

Estimated Total Hour Burden Cost: $798,395 for gathering information required to support an application, which may include preparation of an Eagle Conservation Plan (ECP). This includes 650 hours for pre-construction monitoring surveys of eagle use of the project site and 700 hours of post-construction monitoring for each respondent. Preparation of the application, which may include preparation of an ECP, will take approximately 200 hours per respondent. These burden hours only apply to those seeking a long-term eagle take permit. In addition, those that receive a permit are required to report take of eagles and Threatened or Endangered species within 48 hours of discovery of the take. It is estimated that of the 15 projects permitted to take eagles each year, 10 will actually take eagles, requiring 2 hours per respondent to report. Take of threatened or endangered species is expected to be a rare event, and occur at only one of the 15 projects permitted each year, requiring only 2 hours to report. The burden hours also include the costs for the 5-year permit review. We estimate 8 hours per respondent to complete the requirements of the permit review for a total of 32 hours.

Estimated New Total Nonhour Burden Cost: $359,200 for administration fees and application fees associated with changes in this proposed rule. This does not include the nonhour cost burden for eagle/eagle nest take permits approved under OMB Control No. 1018–0022. States, local governments, and tribal governments are exempt from paying these fees.

Endangered and Threatened Species

Section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531–1544), requires Federal agencies to consult to ''insure that any action authorized, funded, or carried out'' by them ''is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [critical] habitat'' (16 U.S.C. 1536(a)(2)). Intra-Service consultations and conferences consider the effects of the Service's actions on listed, proposed, and candidate species. Our final action of issuing our regulations regarding take of non-ESA-listed eagles does not authorize, fund, or carry out any activity that may affect—directly or indirectly—any ESA-listed species or their critical habitat. *See, e.g., Sierra Club* v. *Bureau of Land Mgmt.,* 786 F.3d 1219 (9th Cir. 2015). Indeed, the Eagle Act does not empower us to authorize, fund, or carry out project activities by third parties. The Eagle Act empowers us to authorize take of bald and golden eagles. Thus, we have determined these revisions have no effect on any listed, proposed, or candidate species or their critical habitat. As a result, section 7 consultation is not required on this proposed action. As appropriate, we will conduct project-specific, intra-Service section 7 consultations in the future if our proposed act of issuing a permit for take of eagles may affect ESA-listed species or critical habitat.

Government-to-Government Relationship With Tribes

In accordance with the President's memorandum of April 29, 1994, ''Government-to-Government Relations with Native American Tribal Governments'' (59 FR 22951), E.O. 13175, and 512 DM 2, we have evaluated potential effects on federally recognized Indian tribes and have determined that this rule will not interfere with tribes' abilities to manage themselves, their funds, or tribal lands. In September of 2013, well before the Service published its notice of intent to develop a draft PEIS for the rule and held public scoping meetings, we sent a letter to all federally recognized tribes inviting them to consult about possible changes to the eagle take permit regulations. The letter notified Tribes of the Service's intent to amend the regulations and sought feedback about their interest in consultation on the amendment. After sending these letters and receiving responses from several Tribes, we conducted webinars, group meetings, and meetings with individual Tribes. We will continue to respond to all Tribal requests for consultation on this effort.

Several tribes that value eagles as part of their cultural heritage objected to the 2013 rule that extended maximum permit duration for programmatic permits based on a concern that the regulations would not adequately protect eagles. Those tribes may perceive further negative effects from similar provisions proposed in this rulemaking. However, eagles will be sufficiently protected under this rule because only those applicants who commit to adaptive management measures to ensure the preservation of eagles will receive permits with terms longer than 5 years and those permits will be reviewed at 5-year intervals and amended if necessary.

Energy Supply, Distribution, or Use (Executive Order 13211)

E.O. 13211 addresses regulations that significantly affect energy supply, distribution, and use. E.O. 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. This rule will likely be used by numerous energy generation projects seeking compliance with the Eagle Act. However, the rule is not a significant regulatory action under E.O. 13211, and no Statement of Energy Effects is required.

Literature Cited

Brown, J.L., M.W. Collopy, E.J. Gott, P.W. Juergens, A.B. Montoya, and W.G. Hunt. 2006. Wild-reared aplomado falcons survive and recruit at higher rates than hacked falcons in a common environment. Biological Conservation 131:453–458.

Huso. M.M.P. 2009. An estimator of wildlife fatality from observed carcasses. Environmetrics 22:318–329.

Kochert, M.N., Steenhof, K., 2012. Frequency of nest use by golden eagles in southwestern Idaho. J. Raptor Res. 46, 239–247. *http://dx.doi.org/10.3356/JRR-12-00001.1.*

Korner-Nievergelt F., Korner-Nievergelt P., Bher O., Niermann I., Brinkmann R., Hellriegel B. 2011. A new method to determine bird and bat fatality at wind energy turbines from carcass searches. Wildlife Biology 17:350–363.

McIntyre, C.L., D.C. Douglas, and M.W. Collopy. 2008. Movements of golden eagles (*Aquila chrysaetos*) from interior Alaska during their first year of independence. The Auk 125:214–224.

McIntyre, C. 2012. Quantifying sources of mortality and winter ranges of golden eagles from interior Alaska using banding and satellite tracking. Journal of Raptor Research 46:129–134.

Millsap, B.A., T.G. Grubb, R.K. Murphy, T. Swem, and J.W. Watson. 2015. Conservation significance of alternative nests of golden eagles. Global Ecology and Conservation 3:234–241.

Mojica, E.K., J.M. Meyers, B.A. Millsap, and K.L. Haley. 2008. Migration of Florida sub-adult bald eagles. The Wilson Journal of Ornithology 120:304–310.

New, L., Bjerre, E., Millsap, B., Otto, M., Runge, M. 2015. A collision risk model to predict avian fatalities at wind facilities: An example using golden eagles, *Aquila chrysaetos. http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0130978.*

Nygaard, T., K. Bevanger, E. Lie Dahl, Ø. Flagstad, A. Follestad, P.L. Hoel, R. May, and O. Reitan. 2010. A study of the White-tailed eagle *Haliaeetus albicilla* movements and mortality at a wind farm in Norway. BOU Proceedings-Climate Change and Birds. British Ornithologists' Union. *http://www.bou.org.uk/bouproc-net/ccb/nygard-etal.pdf.*

U.S. Fish and Wildlife Service. 2007. National Bald Eagle Management Guidelines. Division of Migratory Bird Management. *http://www.fws.gov/birds/management/managed-species/eagle-management.php.*

U.S. Fish and Wildlife Service. 2009. Final Environmental Assessment: Proposal to Permit Take as Provided Under the Bald and Golden Eagle Protection Act. Division of Migratory Bird Management. *http://www.fws.gov/migratorybirds/pdf/management/FEAEagleTakePermit.pdf.*

U.S. Fish and Wildlife Service. 2013. Eagle conservation plan guidance. Module 1—land-based wind energy. Version 2. Division of Migratory Bird Management. *https://www.fws.gov/migratorybirds/pdf/management/eagleconservationplanguidance.pdf.*

U.S. Fish and Wildlife Service. 2013b. Issuance of a Bald and Golden Eagle Act permit to take golden eagles to the Hopi Tribe for Native American religious purposes. Amended Environmental Assessment. Division of Migratory Bird Management, Southwest Region. *https://www.fws.gov/southwest/migratorybirds/docs/Revised%20Final_EA%204_24_2013%20complete.pdf.*

U.S. Fish and Wildlife Service. 2016. Bald and golden eagles: Status, trends, and estimation of sustainable take rates in the United States. Division of Migratory Bird Management, Washington, DC, USA.

Watts, B.D. 2015. Estimating the residual value of alternate bald eagle nests: Implications for nest protection standards. The Journal of Wildlife Management 79:776–784.

Williams, B.K., J.D. Nichols, and M.J. Conroy. 2002. Analysis and management of animal populations: Modeling, estimation, and decision making. Academic Press, San Diego, California USA.

List of Subjects

50 CFR Part 13

Administrative practice and procedure, Exports, Fish, Imports, Plants, Reporting and recordkeeping requirements, Transportation, Wildlife.

50 CFR Part 22

Exports, Imports, Reporting and recordkeeping requirements, Transportation, Wildlife.

Regulation Promulgation

For the reasons described in the preamble, we hereby amend subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 13—GENERAL PERMIT PROCEDURES

■ 1. The authority for part 13 continues to read as follows:

Authority: 16 U.S.C. 668a, 704, 712, 742j–l, 1374(g), 1382, 1538(d), 1539, 1540(f), 3374, 4901–4916; 18 U.S.C. 42; 19 U.S.C. 1202; 31 U.S.C. 9701.

■ 2. Amend the table in § 13.11(d)(4) by:

■ a. Removing the column with the heading ''Administration fee [1]''; and

■ b. Revising the section ''Bald and Golden Eagle Protection Act'' and footnote 1.

The revision reads as follows:

§ 13.11 Application procedures.

* * * * *

(d) * * *

(4) * * *

Type of permit	CFR citation	Permit application fee	Amendment fee
* * * *	*	*	*
Bald and Golden Eagle Protection Act			
Eagle Scientific Collecting	50 CFR part 22	100	50
Eagle Exhibition	50 CFR part 22	75	
Eagle Falconry	50 CFR part 22	100	
Eagle—Native American Religion	50 CFR part 22	No fee	
Eagle Take permits—Depredation and Protection of Health and Safety	50 CFR part 22	100	
Golden Eagle Nest Take	50 CFR part 22	100	50
Eagle Transport—Scientific or Exhibition	50 CFR part 22	75	
Eagle Transport—Native American Religious Purposes	50 CFR part 22	No fee	
Eagle Incidental Take—Up to 5 years, Commercial	50 CFR part 22	2,500	500
Eagle Incidental Take—Non-commercial	50 CFR part 22	500	150
Eagle Incidental Take—5–30 years [1]	50 CFR part 22	36,000 [1]	
Eagle Incidental Take—Transfer of a permit	50 CFR part 22	1,000	
Eagle Nest Take—Single nest, Commercial	50 CFR part 22	2,500	500
Eagle Nest Take—Single nest, Non-commercial	50 CFR part 22	500	150
Eagle Nest Take—Multiple nests	50 CFR part 22	5,000	500
Eagle Take—Exempted under ESA	50 CFR part 22	No fee	
* * * *	*	*	*

[1] An additional Administration Fee of $8,000 will be assessed every 5 years for permits with durations longer than 5 years for permit review.

* * * * *

PART 22—EAGLE PERMITS

■ 3. The authority citation for part 22 is revised to read as follows:

Authority: 16 U.S.C. 668–668d; 703–712; 1531–1544.

■ 4. Amend § 22.3 by:

■ a. Removing the definition of ''Advanced conservation practices'';
■ b. Adding a definition for ''Alternate nest'';
■ c. Removing the definition of ''Area nesting population'';
■ d. Adding definitions for ''Compatible with the preservation of the bald eagle or the golden eagle'' and ''Eagle management unit (EMU)'';
■ e. Revising the definition of ''Eagle nest'';
■ f. Removing the definition of ''Inactive nest'';
■ g. Adding definitions for ''In-use nest'' and ''Local area population (LAP)'';
■ h. Removing the definition of ''Maximum degree achievable'';
■ i. Adding a definition for ''Nesting territory'';
■ j. Revising the definition of ''Practicable''; and
■ k. Removing the definitions of ''Programmatic permit'', ''Programmatic take'', and ''Territory''.

The additions and revisions read as follows:

§ 22.3 What definitions do you need to know?

* * * * *

Alternate nest means one of potentially several nests within a nesting territory that is not an in-use nest at the current time. When there is no in-use nest, all nests in the territory are alternate nests.

* * * * *

Compatible with the preservation of the bald eagle or the golden eagle means consistent with the goals of maintaining stable or increasing breeding populations in all eagle management units and the persistence of local populations throughout the geographic range of each species.

* * * * *

Eagle management unit (EMU) means a geographically bounded region within which permitted take is regulated to meet the management goal of maintaining stable or increasing breeding populations of bald or golden eagles.

Eagle nest means any assemblage of materials built, maintained, or used by bald eagles or golden eagles for the purpose of reproduction.

* * * * *

In-use nest means a bald or golden eagle nest characterized by the presence of one or more eggs, dependent young, or adult eagles on the nest in the past 10 days during the breeding season.

* * * * *

Local area population (LAP) means the bald or golden eagle population within the area of a human activity or project bounded by the natal dispersal distance for the respective species. The LAP is estimated using the average eagle density of the EMU or EMUs where the activity or project is located.

* * * * *

Nesting territory means the area that contains one or more eagle nests within the home range of a mated pair of eagles, regardless of whether such nests were built by the current resident pair.

* * * * *

Practicable means available and capable of being done after taking into consideration existing technology, logistics, and cost in light of a mitigation measure's beneficial value to eagles and the activity's overall purpose, scope, and scale.

* * * * *

§ 22.4 [Amended]

■ 5. In § 22.4, amend paragraph (a) by removing ''and 1018–0136'' in the first sentence.

■ 6. Amend § 22.11 by revising paragraph (c) to read as follows:

§ 22.11 What is the relationship to other permit requirements?

* * * * *

(c) A permit under this part only authorizes take, possession, and/or transport under the Bald and Golden Eagle Protection Act and does not provide authorization under the Migratory Bird Treaty Act or the Endangered Species Act for the take, possession, and/or transport of migratory birds or endangered or threatened species other than bald or golden eagles.

* * * * *

■ 7. Amend § 22.25 by:
■ a. Revising the first sentence of the introductory text;
■ b. Removing the semicolons at the ends of paragraphs (a)(1) and (2) and adding periods in their place;
■ c. Revising paragraph (a)(4);
■ d. Removing the semicolon at the end of paragraph (a)(5) and adding a period in its place;
■ e. Removing paragraph (a)(6), and redesignating paragraphs (a)(7) through (9) as paragraphs (a)(6) through (8);
■ f. Removing the semicolon at the end of newly redesignated paragraph (a)(6) and adding a period in its place and removing ''; and'' at the end of newly redesignated paragraph (a)(7) and adding a period in its place;
■ g. Revising paragraphs (b)(1) and (4);
■ h. Revising the first sentence in paragraph (c) introductory text;
■ i. Removing paragraphs (c)(3) and (6), and redesignating paragraphs (c)(4) and (5) as paragraphs (c)(3) and (4); and
■ j. Revising newly redesignated paragraphs (c)(3) and (4).

The revisions read as follows:

§ 22.25 What are the requirements concerning permits to take golden eagle nests?

The Director may, upon receipt of an application and in accordance with the issuance criteria of this section, issue a permit authorizing any person to take alternate golden eagle nests during a resource development or recovery operation if the taking is compatible with the preservation of golden eagles.

* * *

(a) * * *

(4) *Nest and territory occupancy data.* (i) For each golden eagle nest proposed to be taken, the applicant must identify on an appropriately scaled map or plat the exact location of each golden eagle nest in the nesting territory. The map or plat must contain enough details so that each golden eagle nest can be readily located by the Service.

(ii) A description of the monitoring that was done to verify that eagles are not attending the nest for breeding purposes, and any additional available documentation used in identifying which nests within the territory were in-use nests in current and past breeding seasons.

* * * * *

(b) * * *

(1) Only alternate golden eagle nests may be taken;

* * * * *

(4) The permittee must comply with any mitigation and monitoring measures determined by the Director to be practicable and compatible with the resource development or recovery operation; and

* * * * *

(c) *Issuance criteria.* The Director shall conduct an investigation and not issue a permit to take any golden eagle nest unless such taking is compatible with the preservation of golden eagles.

* * *

* * * * *

(3) Whether suitable golden eagle nesting and foraging habitat unaffected by the resource development or recovery operation is available to accommodate any golden eagles displaced by the resource development or recovery operation; and

(4) Whether practicable mitigation measures compatible with the resource development or recovery operation are available to encourage reoccupation by golden eagles of the resource development or recovery site. Mitigation measures may include, but are not limited to, reclaiming disturbed land to

enhance golden eagle nesting and foraging habitat, relocating in suitable habitat any golden eagle nest taken, or establishing one or more nest sites.

* * * * *

■ 8. Amend § 22.26 by:
■ a. Revising paragraphs (a) and (c)(1) through (3);
■ b. Redesignating paragraphs (c)(7) through (10) as (c)(8) through (11), adding new paragraph (c)(7), and revising newly redesignated paragraphs (c)(8), (9), and (11);
■ c. Revising paragraph (d)(2);
■ d. Adding paragraph (d)(3);
■ e. Revising paragraph (e)(1);
■ f. Redesignating paragraphs (e)(3), (4), and (5) as paragraphs (e)(5), (7), and (9), and adding new paragraphs (e)(3), (4), (6), and (8);
■ g. Revising newly redesignated paragraphs (e)(5) and (e)(7)(i) through (iv);
■ h. Removing newly redesignated paragraph (e)(7)(v); and
■ i. Revising paragraphs (f), (h) and (i).

The revisions and additions read as follows:

§ 22.26 Permits for eagle take that is associated with, but not the purpose of, an activity.

(a) *Purpose and scope.* This permit authorizes take of bald eagles and golden eagles where the take is compatible with the preservation of the bald eagle and the golden eagle; is necessary to protect an interest in a particular locality; is associated with, but not the purpose of, the activity; and cannot practicably be avoided.

* * * * *

(c) * * *

(1) You must comply with all avoidance, minimization, or other mitigation measures specified in the terms of your permit to mitigate for the detrimental effects on eagles, including indirect and cumulative effects, of the permitted take.

(i) Compensatory mitigation scaled to project impacts will be required for any permit authorizing take that would exceed the applicable eagle management unit take limits. Compensatory mitigation for this purpose must ensure the preservation of the affected eagle species by reducing another ongoing form of mortality by an amount equal to or greater than the unavoidable mortality, or increasing the eagle population by an equal or greater amount.

(ii) Compensatory mitigation may also be required in the following circumstances:

(A) When cumulative authorized take, including the proposed take, would exceed 5 percent of the local area population; or

(B) When available data indicate that cumulative unauthorized mortality would exceed 10 percent of the local area population.

(iii) All required compensatory mitigation must:

(A) Be determined based on application of all practicable avoidance and minimization measures;

(B) Be sited within the same eagle management unit where the permitted take will occur unless the Service has reliable data showing that the population affected by the take includes individuals that are reasonably likely to use another eagle management unit during part of their seasonal migration;

(C) Use the best available science in formulating and monitoring the long-term effectiveness of mitigation measures and use rigorous compliance and effectiveness monitoring and evaluation to make certain that mitigation measures achieve their intended outcomes, or that necessary changes are implemented to achieve them;

(D) Be additional and improve upon the baseline conditions of the affected eagle species in a manner that is demonstrably new and would not have occurred without the compensatory mitigation (voluntary actions taken in anticipation of meeting compensatory mitigation requirements for an eagle take permit not yet granted may be credited toward compensatory mitigation requirements);

(E) Be durable and, at a minimum, maintain its intended purpose for as long as impacts of the authorized take persist; and

(F) Include mechanisms to account for and address uncertainty and risk of failure of a compensatory mitigation measure.

(iv) Compensatory mitigation may include conservation banking, in-lieu fee programs, and other third-party mitigation projects or arrangements. Permittee-responsible mitigation may be approved provided the permittee submits verifiable documentation sufficient to demonstrate that the standards set forth in paragraph (c)(1)(iii) of this section have been met and the alternative means of compensatory mitigation will offset the permitted take to the degree that is compatible with the preservation of eagles.

(2) *Monitoring.* (i) You may be required to monitor impacts to eagles from the permitted activity for up to 3 years after completion of the activity or as set forth in a separate management plan, as specified on your permit. For ongoing activities and enduring site features that will likely continue to cause take, periodic monitoring will be required for as long as the data are needed to assess impacts to eagles.

(ii) 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, which is to provide data needed by the Service regarding the impacts of the activity on eagles for purposes of adaptive management. You must coordinate with the Service to develop project-specific monitoring protocols. If the Service has officially issued or endorsed, through rulemaking procedures, monitoring protocols for the activity that will take eagles, you must follow them, unless the Service waives this requirement. Your permit may require that the monitoring be conducted by qualified, independent third parties that report directly to the Service.

(3) You must submit an annual report summarizing the information you obtained through monitoring to the Service every year that your permit is valid and for up to 3 years after completion of the activity or termination of the permit, as specified in your permit. The Service will make eagle mortality information from annual reports available to the public.

* * * * *

(7) *Additional conditions for permits with durations longer than 5 years*—(i) *Monitoring.* 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.

(ii) *Adaptive management.* The permit will specify circumstances under which modifications to avoidance, minimization, or compensatory mitigation measures or monitoring protocols will be required, which may include, but are not limited to: Take levels, location of take, and changes in eagle use of the activity area. At a minimum, the permit must specify actions to be taken if take approaches or reaches the amount authorized and anticipated within a given time frame. Adaptive management terms in a permit will include review periods of no more than 5 years and may require prompt action(s) upon reaching specified

conditions at any time during the review period.

(iii) *Permit reviews.* At no more than 5 years from the date a permit that exceeds 5 years is issued, and at least every 5 years thereafter, the permittee will compile, and submit to the Service, eagle fatality data or other pertinent information that is site-specific for the project, as required by the permit. The Service will review this information, as well as information provided directly to the Service by independent monitors, to determine whether:

(A) The permittee is in compliance with the terms and conditions of the permit and has implemented all applicable adaptive management measures specified in the permit; and

(B) Eagle take does not exceed the amount authorized to occur within the period of review.

(iv) *Actions to be taken based on the permit review.* (A) In consultation with the permittee, the Service will update fatality predictions, authorized take levels and compensatory mitigation for future years, taking into account the observed levels of take based on approved protocols for monitoring and estimating total take, and, if applicable, accounting for changes in operations or permit conditions pursuant to the adaptive management measures specified in the permit or made pursuant to paragraphs (c)(7)(iv)(B) through (D) of this section.

(B) If authorized take levels for the period of review are exceeded in a manner or to a degree not addressed in the adaptive management conditions of the permit, based on the observed levels of take using approved protocols for monitoring and estimating total take, the Service may require additional actions including but not limited to:

(*1*) Adding, removing, or adjusting avoidance, minimization, or compensatory mitigation measures;

(*2*) Modifying adaptive management conditions;

(*3*) Modifying monitoring requirements; and

(*4*) Suspending or revoking the permit in accordance with part 13 of this subchapter B.

(C) If the observed levels of take, using approved protocols for monitoring and estimating total take, are below the authorized take levels for the period of review, the Service will proportionately revise the amount of compensatory mitigation required for the next period of review, including crediting excess compensatory mitigation already provided by applying it to the next period of review.

(D) Provided the permittee implements all required actions and remains compliant with the terms and conditions of the permit, no other action is required. However, with consent of the permittee, the Service may make additional changes to a permit, including appropriate modifications to avoidance and/or minimization measures or monitoring requirements. If measures are adopted that have been shown to be effective in reducing risk to eagles, appropriate adjustments will be made in fatality predictions, take estimates, and compensatory mitigation.

(v) *Fees.* For permits with terms longer than 5 years, an administration fee of $8,000 will be assessed every 5 years for permit review.

(8) The Service may amend, suspend, or revoke a permit issued under this section if new information indicates that revised permit conditions are necessary, or that suspension or revocation is necessary, to safeguard local or regional eagle populations. This provision is in addition to the general criteria for amendment, suspension, and revocation of Federal permits set forth in §§ 13.23, 13.27, and 13.28 of this chapter.

(9) Notwithstanding the provisions of § 13.26 of this chapter, you remain responsible for all outstanding monitoring requirements and mitigation measures required under the terms of the permit for take that occurs prior to cancellation, expiration, suspension, or revocation of the permit.

* * * * *

(11) You are responsible for ensuring that the permitted activity is in compliance with all Federal, Tribal, State, and local laws and regulations applicable to eagles.

(d) * * *

(2) Your application must consist of a completed application Form 3–200–71 and all required attachments. Send applications to the Regional Director of the Region in which the take would occur—Attention: Migratory Bird Permit Office. You can find the current addresses for the Regional Directors in § 2.2 of subchapter A of this chapter.

(3) Except as set forth in paragraph (d)(3)(ii) of this section, an applicant must coordinate with the Service to develop project-specific monitoring and survey protocols, take probability models, and any other applicable data quality standards, and include in the application all the data thereby obtained.

(i) If the Service has officially issued or endorsed, through rulemaking procedures, survey, modeling, or other data quality standards for the activity that will take eagles, you must follow them and include in your application all the data thereby obtained, unless the Service waives this requirement for your application.

(ii) Applications for eagle incidental take permits for wind facilities must include pre-construction eagle survey information collected according to the following standards, unless exceptional circumstances apply and survey requirements can be modified to accommodate those circumstances after consultation with, and written concurrence by, the Service:

(A) Surveys must consist of point-based recordings of bald eagle and golden eagle flight activity (minutes of flight) within a three-dimensional cylindrical plot (the sample plot). The radius of the sample plot is 2,625 feet (ft) (800 meters (m)), and the height above ground level must be either 656 ft (200 m) or 82 ft (25 m) above the maximum blade reach, whichever is greater.

(B) The duration of the survey for each visit to each sample plot must be at least 1 hour.

(C) Sampling must include at least 12 hours per sample plot per year for 2 or more years. Each sample plot must be sampled at least once per month, and the survey start time for a sampling period must be selected randomly from daylight hours,[1] unless the conditions in paragraph (d)(3)(ii)(F) of this section apply.

(D) Sampling design must be spatially representative of the project footprint,[2] and spatial coverage of sample plots must include at least 30 percent of the project footprint. Sample plot locations must be determined randomly, unless the conditions in paragraph (d)(3)(ii)(F) of this section apply.

(E) The permit application package must contain the following:

(1) Coordinates of each sample point in decimal degrees (specify projection/datum).

(2) The radius and height of each sample plot.

(3) The proportion of each three-dimensional sample plot that was observable from the sample point for each survey.

(4) Dates, times, and weather conditions for each survey, to include the time surveys at each sample point began and ended.

(5) Information for each survey on the number of eagles by species observed (both in flight and perched), and the amount of flight time (minutes) that each was in the sample plot area.

[1] Daylight hours are defined as the hours between sunrise and sunset.

[2] The project footprint is the minimum-convex polygon that encompasses the wind-project area inclusive of the hazardous area around all turbines and any associated utility infrastructure, roads, etc.

(6) The number of proposed turbines and their specifications, including brand/model, rotor diameter, hub height, and maximum blade reach (height), or the range of possible options.

(*7*) Coordinates of the proposed turbine locations in decimal degrees (specify projection/datum), including any alternate sites.

(F) Stratified-random sampling (a sample design that accounts for variation in eagle abundance by, for example, habitat, time of day, season) will often provide more robust, efficient sampling. Random sampling with respect to time of day, month, or project footprint can be waived if stratification is determined to be a preferable sampling strategy after consultation and approval in advance with the Service.

(iii) Application of the Service-endorsed data quality standards of paragraphs (d)(3)(i) and (ii) of this section may not be needed if:

(A) The Service has data of sufficient quality to predict the likely risk to eagles;

(B) Expediting the permit process will benefit eagles; or

(C) The Service determines the risk to eagles from the activity is low enough relative to the status of the eagle population based on:

(*1*) Physiographic and biological factors of the project site; or

(*2*) The project design (*i.e.,* use of proven technology, micrositing, etc.).

(e) * * *

(1) Whether take is likely to occur based on the magnitude and nature of the impacts of the activity.

* * * * *

(3) Whether the cumulative authorized take, including the proposed take, would exceed 5 percent of the local area population.

(4) Any available data indicating that unauthorized take may exceed 10 percent of the local area population.

(5) Whether the applicant has proposed all avoidance and minimization measures to reduce the take to the maximum degree practicable relative to the magnitude of the impacts to eagles.

(6) Whether the applicant has proposed compensatory mitigation measures that comply with standards set forth under paragraph (c)(1) of this section to compensate for remaining unavoidable impacts after all appropriate and practicable avoidance and minimization measures have been applied.

(7) * * *

(i) Safety emergencies;

(ii) Increased need for traditionally practiced Native American tribal religious use that requires taking eagles from the wild;

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

(iv) Other interests.

(8) For projects that are already operational and have taken eagles without a permit, whether such past unpermitted eagle take has been resolved or is in the process of resolution with the Office of Law Enforcement through settlement or other appropriate means.

* * * * *

(f) *Required determinations.* Before we issue a permit, we must find that:

(1) The direct and indirect effects of the take and required mitigation, together with the cumulative effects of other permitted take and additional factors affecting the eagle populations within the eagle management unit and the local area population, are compatible with the preservation of bald eagles and golden eagles.

(2) The taking is necessary to protect an interest in a particular locality.

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

(4) The applicant has applied all appropriate and practicable avoidance and minimization measures to reduce impacts to eagles.

(5) The applicant has applied all appropriate and practicable compensatory mitigation measures, when required, pursuant to paragraph (c) of this section, to compensate for remaining unavoidable impacts after all appropriate and practicable avoidance and minimization measures have been applied.

(6) Issuance of the permit will not preclude issuance of another permit necessary to protect an interest of higher priority as set forth in paragraph (e)(7) of this section.

(7) Issuance of the permit will not interfere with an ongoing civil or criminal action concerning unpermitted past eagle take at the project.

* * * * *

(h) *Permit duration.* The duration of each permit issued under this section will be designated on its face and will be based on the duration of the proposed activities, the period of time for which take will occur, the level of impacts to eagles, and the nature and extent of mitigation measures incorporated into the terms and conditions of the permit. A permit for incidental take will not exceed 30 years.

(i) Applicants for eagle incidental take permits who submit a completed permit application by July 14, 2017 may elect to apply for coverage under the regulations that were in effect prior to January 17, 2017 provided that the permit application satisfies the permit application requirements of the regulations in effect prior to January 17, 2017. If the Service issues a permit to such applicants, all of the provisions and conditions of the regulations that were in effect prior to January 17, 2017 will apply.

■ 9. Amend § 22.27 by:

■ a. Revising paragraphs (a)(1)(i) through (iv), (a)(3), and (b)(1), (2), and (7);

■ b. Redesignating paragraphs (b)(8) through (10) as paragraphs (b)(9) through (11), adding a new paragraph (b)(8), and revising newly designated paragraph (b)(11); and

■ c. Revising paragraphs (e)(1), (e)(2) introductory text, (e)(2)(ii) and (iii), and (e)(3) through (6).

The revisions and addition read as follows:

§ 22.27 Removal of eagle nests.

(a) * * *

(1) * * *

(i) An in-use or alternate nest where necessary to alleviate an existing safety emergency, or to prevent a rapidly developing safety emergency that is otherwise likely to result in bodily harm to humans or eagles while the nest is still in use by eagles for breeding purposes;

(ii) An alternate nest when the removal is necessary to ensure public health and safety;

(iii) An alternate nest, or an in-use nest prior to egg-laying, that is built on a human-engineered structure and creates, or is likely to create, a functional hazard that renders the structure inoperable for its intended use; or

(iv) An alternate nest, provided the take is necessary to protect an interest in a particular locality and the activity necessitating the take or the mitigation for the take will, with reasonable certainty, provide a net benefit to eagles.

* * * * *

(3) A permit may be issued under this section to cover multiple nest takes over a period of up to 5 years, provided the permittee complies with comprehensive measures developed in coordination with the Service to minimize the need to remove nests and specified as conditions of the permit.

* * * * *

(b) * * *

(1) The permit does not authorize take of in-use nests except:

(i) For safety emergencies as provided under paragraph (a)(1)(i) of this section; or

(ii) Prior to egg-laying if the in-use nest is built on a human-engineered structure and meets the provisions set forth in paragraph (a)(1)(iii) of this section.

(2) When an in-use nest must be removed under this permit, any take of nestlings or eggs must be conducted by a Service-approved, qualified agent. All nestlings and viable eggs must be immediately transported to foster/recipient nests or a rehabilitation facility permitted to care for eagles, as directed by the Service, unless the Service waives this requirement.

* * * * *

(7) You must comply with all avoidance, minimization, or other mitigation measures specified in the terms of your permit to mitigate for the detrimental effects on eagles, including indirect and cumulative effects, of the permitted take.

(8) Compensatory mitigation scaled to project impacts will be required for any permit authorizing take that would exceed the applicable eagle management unit take limits. Compensatory mitigation must conform to the standards set forth at § 22.26(c)(1)(iii). Compensatory mitigation may also be required in the following circumstances:

(i) When cumulative authorized take, including the proposed take, would exceed 5 percent of the local area population;

(ii) When available data indicate that cumulative unauthorized mortality would exceed 10 percent of the local area population; or

(iii) If the permitted activity does not provide a net benefit to eagles, you must apply appropriate and practicable compensatory mitigation measures as specified in your permit to provide a net benefit to eagles scaled to the effects of the nest removal.

* * * * *

(11) You are responsible for ensuring that the permitted activity is in compliance with all Federal, Tribal, State, and local laws and regulations applicable to eagles.

* * * * *

(e) * * *

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

(2) For alternate nests:

* * * * *

(ii) The nest is built on a human-engineered structure and creates, or is likely to create, a functional hazard that renders the structure inoperable for its intended use; or

(iii) The take is necessary to protect an interest in a particular locality, and the activity necessitating the take or the mitigation for the take will, with reasonable certainty, provide a net benefit to eagles.

(3) For in-use nests prior to egg-laying, the nest is built on a human-engineered structure and creates, or is likely to create, a functional hazard that renders the structure inoperable for its intended use.

(4) For in-use nests, the take is necessary to alleviate an existing safety emergency, or to prevent a rapidly developing safety emergency that is otherwise likely to result in bodily harm to humans or eagles while the nest is still in use by eagles for breeding purposes.

(5) There is no practicable alternative to nest removal that would protect the interest to be served.

(6) Issuing the permit will not preclude the Service from authorizing another take necessary to protect an interest of higher priority, according to the following prioritization order:

(i) Safety emergencies;

(ii) Increased need for traditionally practiced Native American tribal religious use that requires taking eagles from the wild;

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

(iv) Resource development or recovery operations (under § 22.25, for golden eagle nests only); and

(v) Other interests.

* * * * *

Dated: December 8, 2016.

Michael J. Bean,

Principal Deputy Assistant Secretary for Fish and Wildlife and Parks.

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