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Public Comments Processing, Attn: FWS-R9-MB-2011-0054
Division of Policy and Directives Management
U.S. Fish & Wildlife Service
4401 North Fairfax Drive, MS 2042-PDM
Arlington, VA 22203-1610

Subject: Comments on "Eagle Permits: Changes in the Regulations Governing Eagle Permitting"

Dear U.S. Fish & Wildlife Service:

Please find below our timely submitted comments on the U.S. Department of Interior, Fish and Wildlife Service's ("FWS") proposal to revise the regulations for permits for non-purposeful take of Golden Eagles and Bald Eagles under the Bald and Golden Eagle Protection Act ("BGEPA"), specifically the proposal to extend the maximum term for programmatic eagle take permits from five years to 30 years [Docket # FWS–R9–MB–2011–0054; 77 Fed. Reg. 22267 (April 13, 2012)].

These comments are jointly submitted by the Conservation Law Center and American Bird Conservancy.

The Conservation Law Center (CLC) is a not-for-profit public interest law firm located in Bloomington, Indiana, and operates the Conservation Law Clinic under an agreement with Indiana University Maurer School of Law. The CLC represents non-profit environmental organizations and governmental entities in conservation matters and works to improve conservation law and policy.

American Bird Conservancy (ABC) is a not-for profit membership organization whose mission is to conserve native birds and their habitats throughout the Americas. ABC acts across the full spectrum of threats to birds to safeguard the rarest bird species, restore habitats, and reduce threats, unifying and strengthening the bird conservation movement.

FWS has requested comments on the following:

1. The FWS proposal to extend the maximum term for programmatic permits under the BGEPA from five years to 30 years;
2. The FWS proposal to require commitment from long-term programmatic permit applicants to implement additional specified mitigation measures if take exceeds predicted levels or if monitoring or new scientific information indicates that such measures are necessary to protect eagles adequately; how this proposal could be developed in a way that would be practicable and could be implemented in a way that is not unduly burdensome;
3. Suggestions for identifying and specifically defining what we are referring to as "programmatic, small-impact" projects that are expected to result in take of eagles over the life of their operations but are expected to have negligible impacts on Bald or Golden Eagle populations, individually;
4. Changes to the regulations concerning right of succession and transferability of programmatic permits;
5. Whether the fee proposal should be revised in the final regulation to consist of a processing fee to be paid on submission of the permit application and an administration fee to be paid if the applicant is advised that the permit has been approved. Whether the administration fee that would recoup the costs of monitoring during the life of the permit should be a one-time expense paid when the permit is issued or whether the permittee would pay for those costs periodically over the life of the permit.

Our comments focus on and address the first, second, and fourth issue. We also comment on FWS's characterization of this rule change as "strictly administrative."

In Part I we express our opposition to extending the maximum programmatic permit duration to 30 years, in the context of permitting wind power projects, and set forth the reasons for our opposition. In Part II we argue that FWS should require commitment from permit applicants to implement additional specified mitigation measures if take exceeds predicted levels or if monitoring or new scientific information indicates that such measures are necessary to protect eagles adequately, regardless of

the maximum permit duration, but also argue that FWS's application of "adaptive management" will be unlikely to adequately trigger and evaluate such additional conservation measures. In Part III we address the permit transferability issue. In Part IV we express our opposition to FWS's claim that the change in maximum programmatic permit duration from five to 30 years is categorically excluded from National Environmental Policy Act of 1969 ("NEPA") requirements.

Although the proposed rule changes apply to any project that seeks a programmatic eagle take permit, including energy production, transportation, and other types of projects, we focus our comments on how the proposed rule changes affect permitting for wind power facilities. FWS should be able to extend and apply our comments to other types of projects as well.

We incorporate by reference our comments on Docket # FWS–R9–MB–2011–0094, 77 Fed. Reg. 22278 (April 13, 2012), "Comments on Eagle Permits: Revisions to Regulations Governing Take Necessary to Protect Interests in Particular Localities." That FWS proposal is related to the proposal to extend the permit duration, which is the subject of the comments below. Specifically, issues identified in our comments on FWS–R9–MB–2011–0094 are exacerbated if programmatic permits are issued for more than five years in duration, and the effects of extending the permit duration are exacerbated if the permit standards are weakened.

PART I: THE PROPOSAL TO EXTEND THE MAXIMUM TERM FOR PROGRAMMATIC PERMITS TO 30 YEARS IS UNSUPPORTED BY EVIDENCE AND WOULD COMPROMISE EAGLE PRESERVATION.

SUMMARY

We oppose extending the maximum duration for programmatic permits under the BGEPA from the current 5 years to 30 years, for both scientific and legal reasons including the following: (1) a 30-year programmatic permit puts FWS at a disadvantage relative to periodic renewal of a short-term programmatic permit; (2) uncertainties about eagle populations and project impacts are too large to justify 30-year permits; (3) FWS's framework and plans for adaptive management are inadequate to support a 30-year programmatic permit; (4) a 30-year programmatic permit may significantly decrease opportunities for public involvement compared to a five-year programmatic permit; (5) a 30-year programmatic permit is not necessary for long-term projects because the time frame of investment and financing for wind energy generation projects is relatively short and short-term renewable permits are common; (6) extending take permits to 30 years is inconsistent with past statements and priorities made by FWS; (7) Golden Eagles may require listing under the Endangered Species Act during the next 30 years.

COMMENT 1. A 30-Year Programmatic Permit Puts FWS at a Disadvantage Relative to Periodic Renewal of a Short-Term Programmatic Permit and May Significantly Affect Eagle Preservation.

Issuance of a 30-year programmatic eagle take permit is not equivalent to repeated renewal of a five-year programmatic eagle take permit over thirty years. The differences between these options are legally significant if changes need to be made to the terms of the permit due to an unexpected increase in take or other new information. Specifically, issuing a long-term permit shifts the burden of proof to FWS, relative to a short-term permit, if permit amendment, suspension, or revocation is needed to preserve eagles.

A. Issuance Criteria for a Programmatic Permit.

The criteria for issuance of a programmatic eagle take permit, regardless of duration, is governed by 50 C.F.R. § 22.26(f). That section provides, among other things, that FWS must find that the direct and indirect effects of the take and required mitigation, together with the cumulative effects of other permitted take and additional factors affecting eagle populations, are compatible with the "preservation" of Bald Eagles and Golden Eagles, that the permitted take is "unavoidable," and that "the taking will occur despite application of advanced conservation practices."

B. Amendment, Suspension, and Revocation of an Existing Long-Term Programmatic Permit.

Once a programmatic take permit is issued, any amendment, suspension, or revocation of the permit during the duration of the permit is governed by 50 C.F.R. § 22.26(c)(7), § 13.23, § 13.27, and § 13.28. As highlighted below in Comments 2–4, the probability that amendment, suspension, or revocation will be needed to maintain the 50 C.F.R. § 22.26(f) issuance criteria is much greater for a 30-year permit than for a five-year permit because of the difficult-to-predict changes that are likely to occur in a 30-year period, such as climate change and habitat loss.

50 C.F.R. § 22.26(c)(7) states that FWS may amend, suspend, or revoke a programmatic permit "if new information indicates that revised permit conditions are necessary, or that suspension or revocation is necessary, to safeguard local or regional eagle populations." Thus, FWS has the burden to show that amendment, suspension, or revocation is "necessary to safeguard local or regional eagle populations." The provision in 50 C.F.R. § 22.26(c)(7) is in addition to the general criteria for amendment, suspension, and revocation of permits set forth in §§ 13.23, 13.27, and 13.28. Those criteria require FWS to show "just cause" and "necessity" for amendment; to show noncompliance with permit terms, law, or fees for suspension; and to show willful violation of law or failure to correct deficiencies, or that the eagle population 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." Note that

FWS has the burden to show that amendment, suspension, or revocation is triggered. See Table 1.

C. Renewal of a Short-Term Programmatic Permit.

Renewal of a programmatic permit is governed by 50 C.F.R. § 13.21 and § 13.22. Under 50 C.F.R. § 13.22(b), when FWS decides whether to renew a permit the agency must consider the criteria for issuance in § 13.21(b).[1] The agency must also consider the criteria for issuance in 50 C.F.R. § 22.26(f) – pursuant to 50 C.F.R. § 13.22(d), FWS may deny renewal of a permit to any applicant who fails to meet the issuance criteria set forth either in § 13.21 or in the regulations "specifically governing the activity for which the renewal is requested," which is 50 C.F.R. § 22.26(f) for eagle take permits.[2] The agency must periodically make an affirmative decision whether to renew the permit based on the applicant's application for renewal.

According to the issuance criteria in § 13.21(b), FWS need not issue a programmatic permit if, among other things, "the applicant has failed to demonstrate a valid justification for the permit and a showing of responsibility" or "the authorization requested potentially threatens a wildlife or plant population." According to the issuance criteria in 50 C.F.R. § 22.26(f), FWS need not issue a permit if, among other things, the effects of the take, together with the cumulative effects of other permitted take and additional factors affecting eagle populations, are incompatible with the

[1] 50 C.F.R. § 13.21(b) provides: "(b) Upon receipt of a properly executed application for a permit, the Director shall issue the appropriate permit unless: (1) The applicant has been assessed a civil penalty or convicted of any criminal provision of any statute or regulation relating to the activity for which the application is filed, if such assessment or conviction evidences a lack of responsibility. (2) The applicant has failed to disclose material information required, or has made false statements as to any material fact, in connection with his application; (3) The applicant has failed to demonstrate a valid justification for the permit and a showing of responsibility; (4) The authorization requested potentially threatens a wildlife or plant population, or (5) The Director finds through further inquiry or investigation, or otherwise, that the applicant is not qualified."

[2] 50 C.F.R. § 22.26(f) provides: "(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 eagle populations, are compatible with the preservation of Bald Eagles and Golden Eagles; (2) The taking is necessary to protect a legitimate interest in a particular locality; (3) The taking is associated with, but not the purpose of, the activity; (4) The taking cannot practicably be avoided; or for programmatic authorizations, the take is unavoidable; (5) The applicant has avoided and minimized impacts to eagles to the extent practicable, and for programmatic authorizations, the taking will occur despite application of advanced conservation practices; and (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)(4) of this section."

"preservation" of Bald Eagles and Golden Eagles; or if any portion of the permitted take is avoidable and could be avoided by the implementation of advanced conservation practices. Note that, in contrast to FWS's required showings of necessity for amendment, suspension, or revocation of an existing permit, the *applicant* has the burden to show that the criteria for issuance in § 13.21(b) and § 22.26(f) are satisfied before the agency renews the permit. See Table 1.

D. The Permittee Has the Burden to Prove That the Project Meets the Criteria for Permit Renewal, Whereas the Agency Has the Burden to Prove That an Existing Permit Should Be Amended, Suspended, or Revoked.

For FWS's administration of the BGEPA, the difference between the renewal of a short-term programmatic permit and the amendment, suspension, or revocation of a long-term programmatic permit is significant. For a five-year or other short-term permit that is up for renewal, the permittee, which has the resources to gather the necessary information and a critical need to do so in order to secure permit renewal, is charged with showing that the permit issuance criteria are still met or would be met by an amended permit. This requirement includes showing that the take of eagles continues to be "unavoidable."[3]

In contrast, under a 30-year permit duration, no changes will be made unless the agency can show that amendment, suspension, or revocation of the permit is "necessary to safeguard local or regional eagle populations."[4] Moreover, even if the agency has good intentions to periodically review a long-term permit, scarce resources and the press of other work in the agency may mean that a permit may be unexamined or only cursorily reviewed for periods of time exceeding 5 years.

[3] 50 C.F.R. § 22.26(f).
[4] 50 C.F.R. § 22.26(c)(7).

Table 1. Criteria and burden of proof for eagle take permit amendment, suspension, and revocation versus renewal.

	FWS-Initiated Amendment	FWS-Initiated Suspension	FWS-Initiated Revocation	Application for Renewal
Decision Criteria	§ 22.26(c)(7): "[I]f new information indicates that revised permit conditions are necessary, or that suspension or revocation is necessary, to safeguard local or regional eagle populations." + § 13.23(b): "The Service reserves the right to amend any permit for just cause at any time during its term, upon written finding of necessity[.]"	§ 22.26(c)(7): "[I]f new information indicates that revised permit conditions are necessary, or that suspension or revocation is necessary, to safeguard local or regional eagle populations." + § 13.27(a): "[I]f the permittee is not in compliance with the conditions of the permit, or with any applicable laws or regulations governing the conduct of the permitted activity" . . . or "if the permittee fails to pay any fees, penalties or costs owed to the Government."	§ 22.26(c)(7): "[I]f new information indicates that revised permit conditions are necessary, or that suspension or revocation is necessary, to safeguard local or regional eagle populations." + § 13.28(a): "(1) The permittee willfully violates any federal or state statute or regulation, or any Indian tribal law or regulation, or any law or regulation of any foreign country, which involves a violation of the conditions of the permit or of the laws or regulations governing the permitted activity; or (2) The permittee fails within 60 days to correct deficiencies that were the cause of a permit suspension; or (3) The permittee becomes disqualified under § 13.21(c) . . . ; or (4) A change occurs in the statute or regulation authorizing the permit that prohibits the continuation of a permit issued by the Service; or (5) [T]he population(s) . . . 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."	§§ 13.22(b) and (d), and § 13.21(b): FWS may deny renewal of a permit to an applicant who fails to "demonstrate a valid justification for the permit and a showing of responsibility" or who fails to show that the renewal does not "potentially threaten a wildlife or plant population." + § 13.22(d) and § 22.26(f): FWS need not issue a permit if the effects of the take, together with the cumulative effects of other permitted take and additional factors affecting eagle populations, are incompatible with the "preservation" of Bald Eagles and Golden Eagles; or if any portion of the permitted take is not unavoidable and could be avoided by the implementation of advanced conservation practices.
Burden to show criteria satisfied	FWS must show that amendment is necessary.	FWS must show that suspension is necessary and permittee is noncompliant.	FWS must show that revocation is necessary.	Permit Applicant must show that FWS must issue permit because all criteria are satisfied.

COMMENT 2. The Uncertainties About Population Trajectories of Eagles and the Impacts of Wind Energy Facilities on Eagles Are Too Large to Justify Issuing Long-Term Programmatic Take Permits.

A. Issuing Long-Term Permits for Eagle Take Is Irresponsible Given the High Uncertainty About Current and Future Golden Eagle Population Abundance and Given the Suspected Declining Trends.

The BGEPA states that the Secretary of the Interior may authorize the take of eagles pursuant to regulations BGEPA authorizes him to make, after investigating and determining that the take would be "compatible with the preservation of eagles."[5] The Federal Register notice for the 2009 eagle take permit rules defines "compatible with the preservation of eagles" as "consistent with the goal of stable or increasing breeding populations."[6] To know if take is consistent with this goal, FWS must know both the population numbers and trends of both eagle species. However, neither is currently known by FWS.

FWS does not know with the degree of certainty required for issuing programmatic eagle take permits what the population abundances and population trends of eagles are now, much less what they will be in 30 years. This uncertainty is especially pronounced with regard to Golden Eagles, which may in fact be declining in abundance. Increasing the maximum duration of programmatic eagle take permits is therefore particularly ill-advised for Golden Eagles.

A number of examples illustrate the uncertain but suspected declining state of Golden Eagle populations, demonstrating that FWS does not have the knowledge necessary to grant eagle take permits lasting 30 years.

1. When FWS published the 2009 eagle take permit rules, it stated, "In contrast to Bald Eagles, Golden Eagle populations do not appear to be increasing, and may be declining in some parts of their range, possibly due to loss of habitat to support their prey base. Overall, our data for Golden Eagles are not as

[5] 16 U.S.C. § 22.26.
[6] *See* 74 Fed.Reg. 46836, 46837 (September 11, 2009), *Eagle Permits; Take Necessary to Protect Interests in Particular Localities*.

comprehensive as for Bald Eagles, and, under the Eagle Act, we cannot issue take permits for Golden Eagles unless we have enough data to make the determination that the take to be authorized will be compatible with the preservation of Golden Eagles."[7]

2. In 2010, four FWS eagle experts authored an invited presentation on conserving Bald and Golden Eagles in the context of energy development for the annual meeting of the Raptor Research Foundation, an international scientific society. The presentation acknowledged "basic knowledge gaps" in demographic data, including age-specific survival rates; dispersal characteristics, both natal and breeding; estimates of breeding population size; long-term monitoring of occupancy and productivity; and other basic data for setting defendable population goals.[8]
3. A 2012 scholarly paper co-authored by 26 experts from government agencies, universities, environmental consulting firms, and environmental NGOs states that "[t]he Golden Eagle (*Aquila chrysaetos*) population in North America is declining."[9] The paper cites estimates of 21,000 to 35,000 Golden Eagles in the western lower 48 states, and estimates 1,000 to 2,500 Golden Eagles east of the Mississippi River.[10]
4. The most comprehensive recent attempt to gather regional population data about Golden Eagles has been the surveys conducted by WEST, Inc. in four Bird Conservation Regions (BCRs), under contract to FWS.[11] These surveys now have six consecutive years of annual data for portions of Arizona, California, Colorado,

[7] See 74 Fed. Reg. at 46867.
[8] See Diana M. Whittington, Joel E. Pagel, Robert Murphy, and Eric L. Kershner, *Long-term Strategies and Information Needs for Conserving Golden Eagles (*Aquila chrysaetos*) and Bald Eagles (*Haliaeetus leucocephalus*)in an Energy Development Environment* (September 25, 2010), given at the 2010 annual meeting of the Raptor Research Foundation, Ft. Collins, CO, available at http://www.rmrp.info/presentations/Whittington001.pdf.
[9] Todd Katzner et al., *Status, Biology, and Conservation Priorities for North America's Eastern Golden Eagle (*Aquila Chrysaetos*) Populations*, The Auk 129 (1), pp. 168-176 (January 2012) [Attachment 1].
[10] Katzner et al., (January 2012), p. 168 [Attachment 1].
[11]Ryan M. Nielson, Troy Rintz, Lindsay McManus, and Lyman McDonald, *A Survey of Golden Eagles (*Aquila chrysaetos*) in the Western U.S., 2011 Annual Report* (Jan. 26, 2012), available at http://www.west-inc.com/reports/2010GoldenEagleSurvey.pdf.

Idaho, Montana, Nevada, New Mexico, Oregon, Washington, and Wyoming.[12] The surveys have five consecutive years of annual data for portions of North and South Dakota.[13] Although the West report for the 2011 survey concludes that the population trend for all age classes of Golden Eagles in the study area comprising the three BCRs with six years of data is stable, it also stated that this conclusion is "not totally corroborated by the estimated population sizes, because of the relatively large standard errors associated with the point estimates."[14] In addition, the report states that "patterns for the individual BCRs are less clear" and only based on six years of survey data, "so our conclusion should be viewed with caution."[15] This is an understatement. Because of the nature of Golden Eagle population dynamics, six years of survey data is clearly inadequate for drawing definitive conclusions. Even more disturbingly, the 2010 and 2011 survey reports show declining population trends for juvenile Golden Eagles, which were estimated to be declining by 21% annually in BCR 16 (Southern Rockies/Colorado Plateau), 26% annually in BCR 10 (Northern Rockies), and 32% in BCR 17 (Badlands and Prairies).[16] Since Golden Eagle prey surveys are not being conducted, no one knows if these Golden Eagle juvenile declines are related to prey abundance cycles. If the juvenile declines are not related to prey abundance cycles, the declines could be cause for serious concern. The fact that no one knows if the declines are related to prey cycles is another indicator of the large uncertainty regarding Golden Eagle population trends.

[12] The WEST, Inc. Golden Eagle survey coverage in California has been very small and does not include all of the state's ecosystems that support Golden Eagles. See map in Ryan M. Nielson, Troy Rintz, Lyman L. McDonald, and Trent L. McDonald, *Results of the 2010 Survey of Golden Eagles (*Aquila chrysaetos*) in the Western United States* (Jan. 7, 2011), p. 33 [Attachment 2].
[13] These WEST, Inc. surveys are the source of the western U.S. Golden Eagle estimate in the Todd Katzner, et all paper. Bird Conservation Regions 9, 10, and 16 were surveyed in 2003, 2006, 2007, 2008, 2009, 2010, and 2011. Bird Conservation Region 17 was surveyed in 2003, 2006, 2007, 2008, 2009, and 2010. See Nielson et al., (Jan. 26, 2012), pp. 4-6.
[14] Nielson et al., (Jan. 26, 2012), p. 28.
[15] Nielson et al., (Jan. 26, 2012), pp. 28-29.
[16] Nielson et al., (Jan. 7, 2011), p. 17 [Attachment 2].

5. Although the WEST surveys are providing Golden Eagle population data for four BCRs, there is no comprehensive Golden Eagle survey effort in California, the Pacific Northwest, eastern U.S., Alaska, and Canada.[17]
6. The Oregon Eagle Foundation's 2011 study states, "The trends in size and productivity of the [Golden Eagle] nesting population statewide in Oregon are unknown because of insufficient monitoring, and trends may vary by region and have different causes."[18]
7. A 2011 presentation given by FWS staff at a meeting of government agencies, NGOs, and wind industry representatives in California discussed the uncertainty regarding California Golden Eagles: "The status of the [Golden Eagle] population in the western U.S. is unclear. Few published data on Golden Eagle abundance and population trend are available for CA. Of the data that [are] available (published and unpublished) a declining population in some portions [of] western North America was noted. Declines have been documented in San Diego County assessing nesting records spanning over 100 years."[19]
8. According to the Prospectus for the California/Nevada Golden Eagle Working Group, a collaboration between "state and federal agencies, NGOs, researchers, landowners, and other interested parties,"[20] the number of Golden Eagles in California is unknown but is believed to have declined from historic and recent abundances. Nevada Golden Eagles have not been regularly monitored since 1985 and their population trends "are poorly understood."[21] At the Golden Eagle Working Group's May 2011 meeting, raptor expert Pete Bloom stated that there are data "suggesting Golden Eagle populations may be in a downward trend."[22]

[17] See question attributed to J. Pagel, a FWS raptor expert, in *Golden Eagle Working Group Notes, May 2011,* p. 9, available at http://www.dfg.ca.gov/wildlife/nongame/GEWG/docs/meetings/MeetingNotesMay2011.pdf.
[18] Frank B. Isaacs, *Golden Eagles (*Aquila Chrysaetos*) Nesting in Oregon, 2011,* p. 11 (April 16, 2012), available at http://www.blm.gov/or/energy/opportunity/files/GE_2011AnnualReport.pdf.
[19] FWS, *Tehachapi Mountains, Wind Projects and Golden Eagles* (Dec. 2, 2011), slides 7–8, available at http://www.fws.gov/cno/Condor-Eagle%20Workshop%20EAGLE%20presentation_12_02_11_.pdf.
[20] See California Dept. Fish & Game, *California and Nevada Golden Eagle Working Group*, available at http://www.dfg.ca.gov/wildlife/nongame/GEWG/.
[21] See California Dept. Fish & Game, *Golden Eagle Working Group Prospectus* (April 8, 2011), p. 1, available at http://www.dfg.ca.gov/wildlife/nongame/GEWG/docs/WorkingGroupProspectus.pdf.
[22] Pete Bloom, in *Golden Eagle Working Group Notes, May 12, 2011,* p. 7, available at http://www.dfg.ca.gov/wildlife/nongame/GEWG/docs/meetings/MeetingNotesMay2011.pdf.

9. At a 2010 Golden Eagle science symposium in Colorado, Golden Eagle experts reported a range of population statuses and trends for Golden Eagles, including declines in breeding populations in Washington (Jim Watson), relatively stable population in Alaska (Carol McIntyre), a mix of stable and declining populations in Montana (Al Harmata), no obvious downward trend in occupancy in Texas (Dale Stahlecker), no solid numbers in eastern North America (Todd Katzner), long-term population decline in the West with ups and downs in the Great Basin and steady declines in the Rocky Mountains (Jeff Smith), and declines in southern California (Dave Bittner).[23]

B. Many Factors That Affect Eagles and Eagle Populations Will Significantly Vary Over a 30-Year Period, and the Ability to Predict and Plan for Those Changes Is Highly Limited.

In the Federal Register notice for the 2009 eagle take permit rules, FWS stated, "the rule limits permit tenure to five years or less because factors may change over a longer period of time such that a take authorized much earlier would later be incompatible with the preservation of the Bald Eagle or the Golden Eagle."[24]

These factors that may change over the course of 30 years include the loss and adverse modification of eagle habitat due to human development (including conventional and alternative energy production), climate change, increasing frequency and intensity of wildfires, variability in prey abundance, and additive impacts of wind energy development in North American eagle breeding and migration areas in Mexico and Canada. Most of these factors are described in the Final Environmental Assessment for the 2009 eagle take permit rules ("FEA").[25]

Though the best available science-driven eagle data have not fundamentally changed, FWS has perplexingly now reversed its 2009 position, as evidenced by its proposal to extend the maximum duration of programmatic eagle take permits to 30

[23] FWS, *Minutes and Notes from the North American Golden Eagle Science Meeting. Ft. Collins, CO. September 21, 2010*, available at http://www.dfg.ca.gov/wildlife/nongame/raptors/Goldeneagle/docs/NAGoldenEagleScienceMeeting-2010-09-21.pdf.
[24] 74 Fed. Reg. at 46856.
[25] FWS, *Final Environmental Assessment, Proposal to Permit Take as Provided Under the Bald and Golden Eagle Protection Act* (April 2009), p. 49, available at http://www.fws.gov/migratorybirds/CurrentBirdIssues/BaldEagle/FEA_EagleTakePermit_Final.pdf.

years irrespective of these factors. The importance of these factors has not decreased since 2009 – if anything, their importance has increased. Thus, FWS's reversal is not based on sound, science-based principles of wildlife management. Moreover, as discussed below in Comment 3, adaptive management as currently conceived by FWS does not remove the problem. Each of these factors is now discussed in greater detail.

1. Habitat loss and increased development of eagle habitat.

The FEA for the 2009 BGEPA rules stated that "large-scale changes in habitat supporting eagles may have population impacts that may require adjustment to the level of take compatible with the preservation of eagles."[26] Changing the rule to allow programmatic eagle take permits to last up to 30 years instead of the current five would seriously hamper the FWS's ability to adjust levels of take.

The 2009 FEA describes a number of large-scale habitat changes that were already in progress in 2009, including high rates of increased housing development in some states that host high numbers of Bald Eagles; 49 of 100 of the U.S. counties with the highest growth rates between 2000 and 2006 had Bald Eagle sites associated with them.[27] These numbers are not surprising since much Bald Eagle habitat is close to bodies of water and waterways, which are often regarded as desirable features for human housing developments. This means, however, that Bald Eagle habitat is particularly vulnerable to adverse modification and loss. Although the 2009 FEA stated that the FWS did not at that time believe that there had been adverse impacts of human development to the Bald Eagle population overall, such development is only one factor that may change over a 30 year period of time, and it must be looked at cumulatively. The 2009 FEA also stated that increased oil, gas, and pipeline development was occurring in Bald Eagle habitat, and that the cottonwood trees used by Bald Eagles for nesting and roosting in arid areas were in decline. Similarly, the state of Pennsylvania's

[26] FWS, *Final Environmental Assessment, Proposal to Permit Take as Provided Under the Bald and Golden Eagle Protection Act* (April 2009), p. 49.
[27] FWS, *Final Environmental Assessment Proposal to Permit Take as Provided Under the Bald and Golden Eagle Protection Act* (April 2009), p. 56.

Bald Eagle Management Plan lists energy development (wind power, Marcellus shale) as a potentially detrimental factor to Bald Eagle population.[28]

The FEA concluded that "quantification of these impacts is beyond the scope of this environmental analysis."[29] Because the FWS plans no environmental analysis of the impacts of allowing 30 year programmatic eagle take permits, and the 2009 FEA was based on the assumption that the permits would only last up to five years, this lack of quantification is a serious flaw that needs to be remedied.

Habitat loss is also a serious issue for Golden Eagles. The 2009 FEA stated that Golden Eagle populations are negatively affected by "increases in human population, new energy developments, and habitat loss and fragmentation."[30] Dave Bittner, director of the Wildlife Research Institute in southern California, has identified habitat loss and human disturbance as primary threats to Golden Eagles in that these threats result in lost reproductive productivity or abandoned nests.[31] A 2010 survey of Golden Eagle experts identified habitat loss as the number one threat to Golden Eagles.[32] It is expected that loss of Golden Eagle habitat will increase as human population expands and Golden Eagle use areas are converted to housing, agriculture, energy production, and other human activities. For example, according to Jeff Smith, the science director of HawkWatch International, "many high use or 'popular' Golden Eagle winter range areas correspond to areas of ongoing or planned energy development on federal lands, and military land."[33] Habitat loss is also of concern because high-quality habitat may be

[28] See page 24 in Douglas A. Gross and Daniel W. Brauning, *Bald Eagle Management Plan for Pennsylvania* (May 2011), Pennsylvania Game Commission, available through search at http://www.pgc.state.pa.us/portal/server.pt/community/pgc/910.
[29] FWS, *Final Environmental Assessment Proposal to Permit Take as Provided Under the Bald and Golden Eagle Protection Act* (April 2009), p. 57.
[30] Erica Craig (Bureau of Land Management Raptor Ecologist), in *National Golden Eagle Colloquium Minutes and Notes, March 2–3, 2010 Carlsbad, California*, p. 6 [Attachment 3].
[31] Dave Bittner (Director Wildlife Research Institute), in *National Golden Eagle Colloquium Minutes and Notes, March 2–3, 2010 Carlsbad, California*, p. 12 [Attachment 3].
[32] *North American Golden Eagle Science Meeting, Fort Collins CO 21 Sept. 2010*, p. 16, available at http://www.dfg.ca.gov/wildlife/nongame/raptors/goldeneagle/docs/NAGoldenEagleScienceMeeting-2010-09-21.pdf.
[33] Jeff Smith (Science Director Hawkwatch Int'l), in *National Golden Eagle Colloquium Minutes and Notes, March 2–3, 2010, Carlsbad, California*, p. 9 [Attachment 3].

reliant on underlying hydrology and soils, with limited human ability to recreate those conditions.[34]

Threats to Golden Eagle habitat do not only occur in the United States. For example, habitat loss in Golden Eagle wintering grounds in Mexico is of concern as more grazing land is converted to crop production.[35]

2. Climate change.

Climate change is another serious threat that affects eagle populations and will make eagle numbers more difficult to predict over a long period of time (e.g., 30 years). The 2009 FEA states,

> In a review of research evaluating the effects of recent climate change, McCarty (2001) noted that, while scientists have documented the response of species to interannual or geographic variations in climate, they lack sufficient information to understand or predict the responses to the kinds of long-term trends in climatic conditions that have occurred in recent decades. However, changes in the timing of avian breeding and migration and a northward expansion of the geographic range in North American birds have already been documented (McCarty 2001; Peterson 2003; LaSorte and Thompson 2007).[36]

One Golden Eagle expert has noted that changes to Golden Eagle migration may already be occurring due to climate change.[37] Changes in migration patterns or routes could result in higher levels of eagle take than was planned for in a 30-year take permit. The 2009 FEA notes that increasing CO2 in the atmosphere may be affecting fire frequency and intensity by increasing cheatgrass productivity and fuel load, and that increasing CO2 concentrations may be causing increases in an invasive plant species and associated cyanobacteria that are linked to an avian disease that is killing Bald Eagles (avian vacuolar myelinopathy).[38] Climate change may also result in changes to

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[34] *National Golden Eagle Colloquium Minutes and Notes, March 2–3, 2010, Carlsbad, California*, p. 26. [Attachment 3].
[35] Robert Mesta, (Sonoran Joint Venture Coordinator), in *National Golden Eagle Colloquium Minutes and Notes, March 2–3, 2010, Carlsbad, California*, p. 17 [Attachment 3].
[36] FWS, *Final Environmental Assessment Proposal to Permit Take as Provided Under the Bald and Golden Eagle Protection Act* (April 2009), p. 55.
[37] See Jeff Smith, in *National Golden Eagle Colloquium Minutes and Notes, March 2–3, 2010, Carlsbad, California,* p. 9 [Attachment 3].
[38] FWS, *Final Environmental Assessment Proposal to Permit Take as Provided Under the Bald and Golden Eagle Protection Act* (April 2009), pp. 44, 55–56.

populations of jackrabbit and other prey for Golden Eagles; moreover, replacement of native plant species with non-natives can negatively affect Golden Eagle prey species. Golden eagles inhabit many semi-arid and arid areas, which are expected to be heavily impacted by climate change. The WEST, Inc. 2010 study of Golden Eagle populations states that the significance of climate change in the western U.S. "may supersede that of human activity and development in the coming decades."[39] Because the manner in which climate change impacts will play out is very uncertain, these impacts are a large variable that cannot effectively be planned for over a time period of 30 years.

3. Fire frequency.

Fire is another unpredictable variable that could impact eagle populations over a 30-year time period by affecting eagle habitat and prey species on which eagles depend. The 2009 FEA states that fires are increasing in number, frequency, and intensity, and the FEA notes that fires have been shown to cause declines in Golden Eagle nesting success in Idaho.[40] In addition, the FEA notes that the Idaho fires were associated with cheatgrass presence, and further,

> [t]here is evidence that the widespread abundance of cheatgrass, red brome (*Bromus rubens*), and other non-native annual grasses has led to the establishment of a frequent annual grass/fire cycle in areas that had relatively low fire frequency prior to their invasion (Link et al. 2006, Brooks et al. 2004; Whisenant 1990). The interval of natural fires in sagebrush shrub habitat has been shortened via invasions of annual non-native grasses (Crawford et al. 2004).[41]

4. Variability in prey abundance.

Variability in prey abundance is another factor affecting Golden Eagle populations that is unpredictable over a 30-year period. Jackrabbits, a prey mainstay of Golden Eagles in the western U.S., experience multi-year population cycles. California ground squirrels, the primary prey for Golden Eagles in the Altamont Pass Wind Resource Area, do not appear to experience multi-year population cycling, but may be

[39] Ryan M. Nielson, Troy Rintz, Lyman L. McDonald, and Trent L. McDonald, *Results of the 2010 Survey of Golden Eagles (*Aquila chrysaetos*) in the Western United States* (2011), p. 8.
[40] FWS, *Final Environmental Assessment Proposal to Permit Take as Provided Under the Bald and Golden Eagle Protection Act* (April 2009), p. 57.
[41] FWS, *Final Environmental Assessment Proposal to Permit Take as Provided Under the Bald and Golden Eagle Protection Act* (April 2009), p. 58.

reduced in number during years of prolonged winter rainfall.[42] Changes in rainfall patterns are a "very likely" consequence of climate change.[43] In addition, prairie dogs are important prey for Golden Eagles in some areas, and prairie dog population fluctuations may be increasing.[44]

5. Cumulative impacts due to development of wind energy in Mexico and Canada.

In addition to the impacts of wind energy development in the United States, eagles face the impacts of wind energy development on wintering and breeding grounds in Mexico and Canada, contributing to the cumulative impacts on eagles. Predicting wind energy development over a 30-year period will be even more difficult in these countries than in the United States. In addition, foreign development will be beyond the control of U.S. federal agencies, thus exacerbating eagle management challenges. Examples of existing and proposed wind energy development in areas used by Golden Eagles in Mexico include the La Rumorosa I and Energia Sierra Juarez projects in the La Rumorosa region. In Baja California alone, an additional six areas have been identified by the Mexican government as having strong potential for wind energy development.[45] In Canada, wind energy development is likely in some areas used during breeding season by the U.S. population of Golden Eagles. One example is the Gaspe Peninsula, where 12 of 82 identified Golden Eagle nesting sites in Quebec are located, and 1,900 wind turbines are expected by 2015.[46]

All of the factors discussed above suggest a strong potential for large and unpredictable cumulative impacts to eagles over a 30-year period. A 2010 presentation

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[42] Grainger Hunt, *Golden Eagles in a Perilous Landscape: Predicting the Effects of Mitigation for Wind Turbine Blade-Strike Mortality* (2002), California Energy Commission, p. 14, available at http://www.energy.ca.gov/reports/2002-11-04_500-02-043F.PDF

[43] U.S. Environmental Protection Agency, *Future Precipitation and Storm Changes* (2011), available at http://www.epa.gov/climatechange/science/futurepsc.html.

[44] FWS, *Final Environmental Assessment Proposal to Permit Take as Provided Under the Bald and Golden Eagle Protection Act* (April 2009), p. 58.

[45] See page 14 in Duncan Wood et al., *Wind Energy's Potential in Mexico's Northern Border States* (May 2012), Woodrow Wilson International Center for Scholars, available at http://www.wilsoncenter.org/sites/default/files/Border_Wind_Energy_Wood.pdf.

[46] See slides 4 and 5 of Charles Maisonneuve, et al., *Influence of landscape configuration on wind facility frequentation by Golden eagles: A case study*, Raptor Research Foundation Conference, available at http://www.rmrp.info/presentations/Maisonneuve.pdf.

by a senior FWS wildlife biologist acknowledged the risk of cumulative impacts to eagles:

> With evidence pointing to continuing decline of the western population of Golden Eagles, potential impacts to the Sonoran population of Bald Eagles, potential impacts to a growing population of Bald Eagles in the East, and risk to small populations of Golden Eagles in the East, FWS is especially concerned about cumulative impacts to eagles – and other raptors – as well as potential additive mortality.[47]

C. Prediction of Programmatic Take and Risk Is Highly Uncertain.

Programmatic eagle take permits are granted for a set number of eagles, but FWS's model for calculating eagle take is still theoretical and has not been properly validated through accurate predictions of trends in take at multiple wind projects. Moreover, the amount of required mitigation is based on the predicted level of risk to eagles at a specific project. FWS has incorrectly predicted risk to eagles in the past, however; for instance, the level of risk to eagles at the Pine Tree wind project in California was predicted incorrectly to be fairly low.

COMMENT 3. FWS's Framework and Plans for Adaptive Management for Administering Eagle Take Permits Are Likely to Be Inadequate to Justify Issuing Long-Term Programmatic Take Permits.

One of the key assumptions upon which FWS appears to rely in justifying a 30-year programmatic permit is that even if circumstances change over the 30-year duration of the permit, FWS will have an opportunity to mitigate the effects of those changes by imposing additional conservation measures in the context of adaptive management.[48] This assumption is faulty. To the extent that FWS's Draft Eagle Conservation Plan Guidance reflects the agency's framework for future adaptive management plans, FWS's adaptive management plans will not collect the data needed

[47] See slide 10 in Albert M. Manville, *Steps to Avoid or Minimize Take and Disturbance of Raptors at Power Lines and Commercial Wind Turbines*, Raptor Research Foundation Conference, September 25, 2010, Ft. Collins, CO., available at http://www.rmrp.info/presentations/Manville.pdf.

[48] See, e.g., 77 Fed. Reg. at 22276 ("[E]agles would be sufficiently protected under this proposal 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.").

to effectively develop and trigger additional measures in response to unanticipated levels of take. Thus, eagles will not be sufficiently protected under long-term programmatic permits even with an adaptive management plan. Please note, FWS's Draft Conservation Plan Guidance is not the final form of that document, but because FWS has not yet published the final version, we refer to the draft in these comments.

A. Adaptive Management as Represented in the Draft Eagle Conservation Plan Guidance.

The BGEPA regulations require the programmatic permittee to implement advanced conservation measures to avoid and minimize eagle take due to the project, down to a level such that any remaining take is "unavoidable."[49] These implemented measures are matched to the risk factors determined to be present for that particular project. In the Draft Eagle Conservation Plan Guidance, FWS lists examples of advanced conservation practices applicable before and during construction, and during operations.[50]

FWS recognizes, however, that the predicted baseline risk of eagle take and the predicted applicability and efficacy of these conservation measures for avoiding and minimizing risk are uncertain. FWS's framework for adaptive management, as represented in the Draft Guidance, calls for (1) reducing the uncertainty in the efficacy of implemented conservation measures, including halting measures that are not working; and (2) implementing additional conservation measures if take exceeds expected levels or if monitoring or new scientific information indicates that such measures are necessary to protect eagles adequately.[51] FWS lists examples of such "additional" advanced conservation measures in the Draft Guidance.[52] According to FWS, these "additional" measures have not been sufficiently demonstrated to be effective in reducing eagle mortality, and unless "compelling evidence" suggests that these measures are warranted as part of the strategy to reduce eagle take to an

[49] 50 C.F.R. §§ 22.26(a)(2), 22.26(e)(3), 22.26(f)(4), (5).
[50] FWS, *Draft Eagle Conservation Plan Guidance*, January 2011, Appendices D and E, available at http://www.fws.gov/windenergy/eagle_guidance.html and http://www.fws.gov/windenergy/docs/ECP_draft_guidance_2_10_final_clean_omb.pdf.
[51] FWS, *Draft Eagle Conservation Plan Guidance*, January 2011, pp. 26–27.
[52] FWS, *Draft Eagle Conservation Plan Guidance*, January 2011, App. E.

"unavoidable" level, FWS will issue permits without these "additional" measures but with a condition that "post-construction monitoring data be evaluated to identify potential operational modifications that might be implemented experimentally in the future to reduce mortality rates (e.g., if observed mortalities are limited to a single turbine in a single season, shutting down that turbine in that season would be a potential additional ACP)."[53]

B. FWS's Ability to Avoid, Minimize, or Compensate for Eagle Take, Once a Facility Is Sited, Is Very Limited and Uncertain.

Known measures to avoid, minimize, and compensate for eagle take remain very limited in number and highly uncertain in effect. First, FWS and the operator of a wind project will have very limited ability to minimize and avoid eagle fatalities after the wind facility is sited. FWS has stated that "[s]urprisingly little published literature on Golden Eagles can be used to directly inform decisions on avoiding or minimizing negative impacts of anthropogenic activities" and "[w]e have limited capability to minimize the impacts once built, so avoidance remains the best first step." [54] A large proportion of the example Advanced Conservation Practices listed by FWS in the Draft Guidance refer to siting considerations.[55] Dr. Shawn Smallwood, a well-known expert on avian mortality at wind energy facilities, stated in his comments on the Draft Eagle Conservation Plan Guidance that measures to reduce the risk of eagle fatalities are very limited:

> [The FWS's Adaptive Management Plan] discussion gives a false impression that [measures] to reduce Golden Eagle fatalities at wind projects are available and potentially effective . . . In fact, there are no known [measures] available to reduce Golden Eagle fatalities, except for strategic wind turbine removals in the Altamont Pass (Smallwood 2009, 2011). However, it is unrealistic to expect wind turbine owners to

[53] FWS, *Draft Eagle Conservation Plan Guidance*, January 2011, pp. 68–69.
[54] Examples of the kinds of sites to avoid include significant breeding areas, major migration routes, concentration areas, important wintering areas, communal roosts, and primary foraging areas. See Diana M. Whittington, Joel E. Pagel, Robert Murphy, and Eric L. Kershner, FWS, *Long-term Strategies and Information Needs for Conserving Golden Eagles (*Aquila chrysaetos*) and Bald Eagles* (Haliaeetus leucocephalus*) in an Energy Development Environment*, (September 25, 2010), slide presentation at 2010 annual meeting of Raptor Research Foundation, Ft. Collins, CO, available at http://www.rmrp.info/presentations/Whittington001.pdf.
[55] FWS, Draft Eagle Conservation Plan Guidance, January 2011, pp. 66–67.

strategically remove modern wind turbines because the investment cost for installation is too high.[56]

Second, FWS and the project operator will have very limited ability to compensate for "unavoidable" take (i.e., the take remaining after take is avoided and minimized to the maximum extent technologically available). FWS has repeatedly stated that there are no proven compensatory mitigation measures for eagles and thus proper siting is the most important action to get right.[57] For example, FWS has stated that "[p]otential compensation measures to offset impacts to [Golden Eagles] are limited, due to a lack of supporting data on their effectiveness."[58]

Although the Federal Register notice for the 2009 eagle take permit rule stated that FWS was considering habitat-based options for compensatory mitigation to offset eagle take,[59] the only compensatory mitigation measure advocated in the draft Eagle Conservation Plan Guidance to offset eagle take by wind facilities is retrofitting of power poles. But retrofitting of utility power poles to Avian Power Line Interaction Committee ("APLIC") standards should not be relied upon to mitigate for take of eagles by other projects, such as wind facilities, even if the other project pays for the retrofitting. First, the calculation of how many power poles need to be retrofitted to compensate for an eagle death is theoretical and not validated. Second, for some eagle species in some areas, non-retrofitted power poles may not be a significant mortality threat. For example, during the 30-year recovery of the Bald Eagle in Ohio, Bald Eagles were lost to power line strikes and electrocution, but none of those deaths occurred from electrocution upon landing on a power pole.[60] Third, it cannot be assumed that power pole retrofit equipment will be installed properly. A 1999 California Energy Commission study found that 65% of the observed wildlife protective devices were not

[56] Comments of Dr. Shawn Smallwood on Draft Eagle Conservation Plan Guidance, May 18, 2011, pp. 4–5, available at http://www.fws.gov/windenergy/eagle_comments/shawn_smallwood.pdf.
[57] FWS defines "compensatory mitigation" as mitigation that reduces another, ongoing form of mortality by an amount equal to the additional mortality caused by the permitted activity.
[58] FWS, *Tehachapi Mountains, Wind Projects and Golden Eagles*, (December 2011), slide presentation (slide 7), available at http://www.fws.gov/cno/Condor-Eagle%20Workshop%20EAGLE%20presentation_12_02_11_.pdf.
[59] See 74 Fed. Reg. at 46855.
[60] See pages 4–5 in Black Swamp Bird Observatory's comments to FWS regarding the draft Environmental Assessment (EA) for the proposed West Butte Wind Project programmatic eagle take permit (February 7, 2012), available at http://www.bsbo.org/pdf/DEA_for_the_West_Butte_Wind_Project_02172012.pdf.

installed according to manufacturer recommendations or the utility's engineering standards, and were installed incompletely or improperly.[61] Fourth, retrofitting of power poles to reduce eagle take is already required under the Migratory Bird Treaty Act ("MBTA") and the BGEPA: compensatory mitigation measures should be actions that are not already required by law, such as reducing the *legal* introduction of lead into the environment or reducing the *legal* use of poisons for small mammal control. Power poles belong to a utility, which is typically not the same as the wind facility developer or operator. If power poles are taking eagles, the utility and not the wind facility is violating the BGEPA, and the utility should thus fund the retrofitting necessary to bring the power poles into compliance with the BGEPA.

C. FWS Will Require a Powerful Adaptive Management Plan That Collects the Needed Data and Effectively Triggers Additional Measures.

Because known measures for reducing eagle take, other than sensitive siting, are highly uncertain and limited, avoiding and minimizing the risk of eagle fatalities and compensating for unavoidable fatalities will be difficult as various changes and unexpected events, such as those related to climate change and habitat loss, occur. FWS will need maximum flexibility to address such changes and events and to implement additional mitigation measures if eagle take is higher than expected or if new information shows unanticipated impacts. A large component of that needed flexibility is a powerful adaptive management plan so that uncertainties can be effectively reduced and new measures developed and effectively triggered. Adaptive management means learning by doing in a structured process in order to meet management goals and objectives when the effects of the project and/or effects of avoidance, minimization, and compensatory measures are uncertain. In order for adaptive management to be

[61] See page 3 in Mark Dedon, *Reducing Wildlife Interactions with Electrical Generation Facilties* (199), California Energy Commission, available at http://www.energy.ca.gov/reports/2002-01-10_600-00-030.PDF. Also, a presentation from a 2012 avian collision avoidance workshop in New Mexico used photos to illustrate some of the many ways that protection devices can be installed improperly. See also Irv Walker (Utilitech Inspection Services), *Bird Guarding, the Good, the Bad, & the Ugly* (February 15, 2012), presented at 2012 NMAP Avian Electrocution & Collision Prevention Workshop, available at http://nmavianprotection.org/?page_id=208.

effective, however, the necessary data must be generated and collected to feed into the process.

An effective adaptive management program must specify a monitoring and data collection regime that can allow FWS to determine, with a reasonable margin of error, (a) whether permitted eagle take has been surpassed; (b) whether the relevant eagle populations are stabilized, increasing, or decreasing; (c) whether implemented measures are working as expected; (d) what additional measures could be implemented to further avoid, minimize, or compensate for eagle take if new information indicates undesirable and unexpected effects of the project on eagles;[62] and (e) whether those additional measures, once implemented, are having the desired effect.

These data must be able to trigger each successive stage of the adaptive management cycle: i.e., (a) data on efficacy of implemented measures must effectively trigger removal of ineffective measures; (b) data on efficacy, eagle take, and population abundance and trends must effectively trigger the decision that additional measures are needed; (c) data on the applicability and *potential* efficacy of candidate additional measures must be able to trigger selection and implementation of additional measures most likely to solve the problem; and (d) data on the *actual* efficacy of the additional measures selected and implemented must be able to trigger any needed modifications to those additional implemented measures.

[62] According to FWS, the amount, location, and timeframe of take over the life of a programmatic permit cannot be accurately predicted and specified: that is, FWS cannot specify a priori that a project with programmatic take will kill "x" number of eagles per year. Thus, selecting the level of take necessary to trigger additional conservation measures may not be straightforward; for example, if a range of take is anticipated, should additional measures be triggered when observed take is greater than the maximum of the anticipated range, greater than the 80th percentile of that range, etc.? *See* 74 Fed. Reg. at 46856 ("Comment: The permit must be specific as to how much take is authorized and how it will occur. Otherwise, the permit may inadvertently grant indemnity for all take, whether anticipated or not. Service response: Most permits will be specific as to how much take is authorized and how and roughly when it will occur. The exception will be programmatic permits, which will authorize take for large-scale and or long-term activities where take is anticipated but the exact amount, location, and timeframes are impossible to identify.").

D. FWS's Future Monitoring and Data Collection Plans, as Indicated by the Draft Eagle Conservation Plan Guidance, Are Inadequate to Support Effective Adaptive Management for Programmatic Permits, Particularly Over a 30-Year Period, Because They Fail to Provide for Experimental Manipulation.

To the extent that FWS's Draft Eagle Conservation Plan Guidance reflects FWS's future framework for adaptive management, the data necessary to determine the applicability and likely efficacy of "additional" conservation measures may not be generated or collected. This shortcoming is particularly troublesome if adaptive management is applied in the context of a long-term permit.

FWS expects generally that the data necessary to trigger additional conservation measures will be collected as part of the risk factor documentation (Draft Guidance Appendix D page 60) and the fatality monitoring (Draft Guidance Appendix H page 99).[63] Risk factors documented for each wind turbine include topographic features conducive to slope soaring or flight corridors, and proximity to known or potential foraging, nesting, perching, or roosting sites or structures. During fatality monitoring, the following information (and other data) will be recorded when a dead eagle is found at a wind facility: species, age and sex, turbine and location of carcass relative to turbine, surrounding habitat, description of the mortality, and estimated time of death.[64]

According to FWS, the justification for designating some conservation measures as "additional," and thus not implemented to reduce take to "unavoidable" levels, is that they have not been "implemented and monitored sufficiently to be demonstrably effective in reducing eagle mortality,"[65] which we interpret to mean are not "technically achievable" or not "scientifically supportable" or defensible.[66] Any measures that are demonstrably effective would presumably be implemented to reduce eagle take to the "unavoidable" level and thus would not be classified as "additional."

As FWS currently conceives of adaptive management and monitoring associated with programmatic eagle take permits, however, these "additional" conservation

[63] FWS, *Draft Eagle Conservation Plan Guidance*, January 2011, pp. 32–33, App. H.
[64] FWS, *Draft Eagle Conservation Plan Guidance*, January 2011, App. H, p. 99.
[65] FWS, *Draft Eagle Conservation Plan Guidance*, January 2011, Appendix E, pp. 68–69.
[66] *See* 50 C.F.R. § 22.3 (definitions).

measures would not be triggered except in the most simplified circumstances. For example, the combined information on risk factors and monitored fatalities might be sufficient to trigger a seasonal turbine shutdown *if* the data show that eagle deaths all occur during one time of the year or are significantly clustered at one or a few turbines (i.e., locations) in a single season.[67] Other than such relatively simple cases where the effect of variation in season and turbine location is assessed – variation in season and turbine location is common to all facilities – FWS's monitoring framework would be unlikely to provide data generally necessary to trigger many of the "additional" conservation measures listed by FWS. For instance, if all of the turbines at a facility have the same design from the start, how would a modification of turbine design (an "additional" measure listed by FWS in the Draft Guidance)[68] ever be triggered – that is, identified as potentially effective or necessary – as an additional measure? Unlike variation in season and turbine location, which is common to all facilities, variation in turbine design must be imposed experimentally; observed mortality cannot be attributed to turbine design if all turbines are the same design. It is no answer to say that FWS will require the permittee to experiment with a different turbine design *after* FWS determines that some "additional" reduction in eagle mortality is needed, because at that point there would be no justification for believing that a change in turbine design might be effective. Similarly, how would adjustment of turbine cut-in speed ever be triggered as an "additional" conservation measure unless cut-in speed was, from the start, purposefully varied across the facility and those treatments statistically associated with observed eagle mortality? Monitoring data on eagle fatalities in a project with uniform turbine design and cut-in speeds cannot identify these measures as potentially effective operational modifications that might be implemented to reduce mortality rates. The information necessary to trigger "additional" measures of highly uncertain effectiveness requires an experimental design beyond the limited observational monitoring called for in the Draft Guidance.[69]

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[67] This is the example used by FWS in the Draft Eagle Conservation Plan Guidance, January 2011, Appendix E, pp. 68–69 ("[I]f observed mortalities are limited to a single turbine in a single season, shutting down that turbine in that season would be a potential additional ACP").
[68] FWS, *Draft Eagle Conservation Plan Guidance*, January 2011, Appendix E, p. 69.
[69] Terry L. Shaffer and Douglas H. Johnson, *Ways of Learning: Observational Studies Versus Experiments*, Journal of Wildlife Management, 72 (1): 4–13 (Jan. 2008).

What is desperately needed is implementation and evaluation of *potentially* effective "additional" measures in an *experimental* context from the start of facility operations. FWS needs to study the benefits of "additional" measures such as replacing existing horizontal turbines with new designs, placing visual and/or auditory bird flight diverters in critical locations, adjusting turbine cut in speeds, installing sound devices, blade "feathering," seasonal shutdowns, turbine set-backs from ridges, and deterrents,[70] in the context of operational permitted projects, or else the existing uncertainties will never be reduced.

The most efficient and powerful way to determine the efficacy of highly uncertain measures is to implement them in an experimental context, an essential component of "active" adaptive management.[71] Yet active adaptive management does not appear to be provided for in the Draft Guidance, and this omission is corroborated by FWS's discussion of required monitoring in the Federal Register notice for the 2009 BGEPA rule.[72] FWS apparently has chosen to forego "active" adaptive management in favor of a less-powerful passive, observational approach with respect to eagle take permitting. That choice means, however, that FWS's adaptive management framework cannot sustain long-term eagle take permits. The ability to collect the data necessary to trigger and evaluate "additional" conservation measures is especially critical for long-term eagle take permits because FWS appears to be relying in part on the adaptive management process to justify extending the programmatic permit duration to 30 years. FWS has

[70] FWS, *Draft Eagle Conservation Plan Guidance*, January 2011, App. E pp. 68–69; Albert M. Manville, II, FWS, *Raptor Research Foundation's Raptors and Energy Session: Steps to Avoid or Minimize Take and Disturbance of Raptors at Power Lines and Commercial Wind Turbines*, slide presentation at Raptors and Energy Session, September 25, 2010, Ft. Collins, CO, available at http://www.rmrp.info/presentations/Manville.pdf; Diana M. Whittington, Joel E. Pagel, Robert Murphy, and Eric L. Kershner, FWS, *Long-term Strategies and Information Needs for Conserving Golden Eagles (*Aquila chrysaetos*) and Bald Eagles (*Haliaeetus leucocephalus*)in an Energy Development Environment*, (September 25, 2010), slide presentation at the 2010 annual meeting of the Raptor Research Foundation, Ft. Collins, CO, available at http://www.rmrp.info/presentations/Whittington001.pdf.

[71] See, e.g., George H. Stankey, Roger N. Clark, and Bernard T. Bormann, USDA, *Adaptive Management of Natural Resources: Theory, Concepts, and Management Institutions*, PNW-GTR-654 (August 2005), available at http://www.fs.fed.us/pnw/pubs/pnw_gtr654.pdf; K. N. Lee, *Appraising Adaptive Management*, Conservation Ecology 3(2): 3 (1999) [online] URL: http://www.consecol.org/vol3/iss2/art3, available at http://water.epa.gov/lawsregs/guidance/wetlands/upload/2004_11_17_wetlands_MitigationActionPlan_performance_Lee1999.pdf.

[72] 74 Fed. Reg. at 46857 (referring, among other things, to "minimal monitoring that the average person can easily perform").

not justified how, without providing for active adaptive management, the necessary data will be collected and the essential uncertainties in "additional" conservation measures can be reduced on a time frame relevant to avoiding and minimizing eagle take and preserving eagle populations.

COMMENT 4. A 30-Year Programmatic Permit May Significantly Decrease Opportunities for Public Involvement in Permitting Compared to a Five-Year Programmatic Permit.

As FWS recognizes, the development of programmatic permits will each be subject to NEPA.[73] Under NEPA, agencies must permit the public to "play a role in the decisionmaking process and the implementation of that decision."[74] When a decision requires only an environmental assessment ("EA"), rather than an environmental impact statement ("EIS"), agencies must still involve the public in the EA process "to the extent practicable."[75] Even when the agency makes a finding of no significant impact, it must "[m]ake diligent efforts to involve the public in preparing and implementing their NEPA procedures."[76] Although FWS is thus required to involve the public in any NEPA procedures associated with the issuance of a programmatic eagle take permit, at the same time FWS rejects institutionalizing a public comment period for each *permit*.[77]

It seems reasonable to assume that FWS will provide similar opportunities for public input if a supplemental NEPA document is called for at the time of renewal of an issued programmatic eagle take permit – that is, if FWS determines at the time of renewal that significant new circumstances or information exist regarding eagle take or that substantial changes to the permit terms are warranted.[78] We are concerned, however, that FWS will not provide for public involvement or comment when it considers significant amendment, suspension, or revocation of an *existing* eagle take

[73] 74 Fed. Reg. at 46862 (FWS response to comments on 2009 BGEPA rule).
[74] *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989); *Theodore Roosevelt Conservation Partnership v. Salazar*, 616 F.3d 497, 518 (D.C. Cir. 2010); see also 40 C.F.R. § 1506.6.
[75] 40 C.F.R. § 1501.4(b).
[76] 40 C.F.R. §§ 1506.6(a), 1501.4(e)(1); *Theodore Roosevelt Conservation Partnership*, 616 F.3d at 518.
[77] 74 Fed. Reg. at 46856, 46860 (FWS response to comments on 2009 BGEPA rule).
[78] 40 C.F.R. § 1502.9(c) (supplemental EIS); see also *Native Ecosystems Council v. Tidwell*, 599 F.3d 926, 937 (9th Cir. 2010) (applying supplementation requirement to EA).

permit under 50 C.F.R. §§ 22.26(c)(7), 13.23, 13.27, and 13.28.[79] If this assessment of FWS's plan for public involvement is correct, then extending the maximum duration of programmatic eagle take permits would significantly reduce opportunities for the public to be involved in and comment on modifications to such permits.

COMMENT 5. A 30-Year Programmatic Permit Is Not Necessary for Long-Term Projects Including Wind Energy Projects, Because the Time Frame of Investment and Financing for Such Projects Is Relatively Short, and Because Short-Term Permits Are Often Successfully Applied to Long-Term Projects.

A. The Duration of a Programmatic Permit Is Not a Critical Factor Affecting Investment in Wind Energy Projects, and Any Issues Can Be Resolved with a Modest Increase in Permit Duration.

FWS explains the proposed six-fold increase in the possible duration of programmatic eagle take permits principally by the statement that during the review of permit applications "it became evident" that the five-year permit limit "needed" to be extended "to better conform to the timeframe of renewable energy projects."

Aside from other problems with FWS's justification for the proposed rule revision, there is no support for the claim that an increased permit duration is needed due to the peculiarities of renewable energy projects. In fact, there is nothing about the various timeframes for renewable energy projects that requires a 30-year programmatic eagle take permit. Moreover, the amendable 30-year permit that FWS proposes, if it is to be consistent with the preservation standard of the BGEPA, cannot deliver even marginal utility to the promoters of renewable energy projects.

The most critical factors in renewable energy investment are federal subsidies such as the Production Tax Credit and the Investment Tax Credit.[80] Testimony given before Congress in 2009 by Timothy J. Richards, General Electric's Managing Director

[79] "The Service may amend, suspend, or revoke a programmatic 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." 50 C.F.R. § 22.26(c)(7).

[80] *See* Richard W. Caperton, *Good Government Investments in Renewable Energy*, Center for American Progress (January 10, 2012), available at http://www.americanprogress.org/issues/2012/01/renewable_energy_investment.html.

of International Energy Policy, was to the same effect.[81] While Richards certainly identified time horizons measured in decades as a factor that distinguished renewable energy projects, the changes he asked Congress to make included tax credits and other subsidies of increased length and predictability, a favorable trade policy, and the adoption of binding renewable energy standards. Richards made no mention of diluting the standards required for environmental permits, much less eagle take permits, as critical factors needing attention.

This is not to say that energy developers would not like to be free of environmental permitting issues. They would certainly be very happy not to be accountable for eagle deaths. But eagle permitting is simply not anywhere near the top of the list of obstacles to the development of wind power or other renewable energy projects. And relief from accountability is not possible under the BGEPA.

In support of the changes in permitting that it proposes, FWS implies that a 30-year permit would somehow provide a long-term certainty that is not possible with five-year permits, while simultaneously meeting the statutory requirement that a facility permitted under law to take eagles be operated in a manner consistent with eagle preservation. FWS admits that the terms of a 30-year permit, and the assumptions under which it is issued, might prove faulty. In a similar vein, FWS acknowledges that it has relatively little information on the impacts of wind energy on eagles. It is therefore likely that the provisions and terms of long-term eagle take permits will have to be changed as technology changes, as more information on the effect of renewable energy projects on eagles is accumulated, and as more techniques for minimizing impact are developed. FWS says that it will meet the statutory requirement of eagle preservation despite the proposed long-term permit regime by requiring amendments to or revocation of programmatic permits that prove deficient. If that kind of ad hoc administration of permits is a better option for the industry than the current five-year renewal process, it is better because it does not meet to the same degree the obligation

[81] Written Testimony of Timothy J. Richards, Managing Director – International Energy Policy, General Electric Company, Hearing on Growing U.S. Trade in Green Technology, Before the Subcommittee on Commerce, Trade & Consumer Protection, Committee on Energy and Commerce, U.S. House of Representatives (October 7, 2009), available at http://www.scribd.com/doc/20748346/Tim-Richards-Testimony.

under law to preserve eagles. If, on the other hand, permit amendments on the fly will be as frequent in the 30-year regime as permit changes upon application for renewal of five-year permits – that is, if the 30-year permits meet the obligation to preserve eagles as effectively as the five-year renewable permits – then moving to 30-year permits provides industry with no greater certainty. In that case too, then, given the shifting of burdens implicit in FWS's 30-year proposal, as discussed above, there is no reason to make the proposed change, and the rule should not be revised as those revisions are currently conceived.

With respect to the claim that the timeframe of renewable energy projects requires 30-year permits, presumably because potential investors require certainty for that period of time, we have already commented that eagle permits are nowhere near the top of any investor's list of questions and priorities. Further, it is a mistake to conclude that because the project has a 30-year planned life, potential investors in the project have a 30-year investment horizon. As described in "Private Financing of Renewable Energy," by Sophie Justice,[82] the roster of sources of equity finance for renewable energy includes the following: venture capitalists, who are willing to take high risk in exchange for very high returns on investment and an exit within 4–7 years; private equity funds, looking for returns on investment of 25% in return for moderate risk and an exit in 3–5 years; and infrastructure funds, seeking low-risk cash flow and a return of 15% on a 7–10 year investment.

Wind project developers may seek early-stage investment from each or any of such sources. In the wind resource identification and land acquisition stages, operational permitting is a second-order issue. In the middle financing tier, the developer and the suppliers may be concerned about progressing far enough to be able to claim production or investment tax credits; thus the wildlife and environmental studies will be or will have been conducted, but the middle stage investment horizon again matches up pretty well with the current five-year permit, to the extent permits are even needed for this second development stage.

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[82] Sophie Justice, *Private Financing of Renewable Energy: A Guide for Policymakers* (Dec. 2009), produced under the sponsorship of the United Nations Environment Programme, the Sustainable Energy Finance Initiative, The Royal Institute of International Affairs, and Bloomberg New Energy Finance, available at *http://sefi.unep.org/fileadmin/media/sefi/docs/publications/Finance_guide_FINAL-.pdf*.

The next investment stage may also be a relatively short one. Substantial financing will be necessary to bring the project to the operational stage. Once a renewable energy project is operational, the developer will often seek to sell the facility to yet another party who will operate it over the long term. The finance horizon for such facility-selling developers is again closer to a few years than to 30 years. Again, many variables and risks will affect the market for such sales. Eagle permitting is a minor one, and in a carefully and responsibly planned project, will be an insignificant one.

A fully operational project may finally be seeking relatively long-term loan or debt financing. Risk assessment is vital in this stage of financing, and project developers work to mitigate all risks: power purchase agreements to resolve market and cash flow questions, and permits to resolve environmental questions. The first eagle take permits will, however, already have been issued for such a project. The risk that remains is the risk that the assumptions and predictions as to eagle take were wrong. The proposed regulations cannot lawfully eliminate that risk, and a longer-term permit would not reduce that risk unless FWS is not serious about requiring amendments, suspension, or revocation if the assumptions and predictions under which the permit was issued proved wrong.

Projects are likely to be highly interest rate sensitive, and the longer the length of the loan, the higher the interest rate is likely to be, because of the accumulation of time-dependent uncertainties. Even in the event of the issuance of a wind or renewable energy loan or bond with a 30-year time frame, the ownership of that debt can be expected to change hands several times over that period, and though expected resale value is a consideration from the outset, most investors are looking at a time frame far shorter and far more predictable than a 30-year increment. A five-year permit duration matches up reasonably well with investment needs, and matches far better the state of our knowledge of eagle preservation and the state of development of the renewable energy industry.

With respect to renewable energy project funding by subsidiaries of large corporations operating principally in power or energy sectors other than renewable energy, there are three points to be made. First, among corporations with discretionary internal capital to invest in renewable energy projects, investment in renewable energy

is driven in part by considerations of research and development, public and government relations, and marketing. Second, contrary to industry claims that five-year permits will deter investment, renewable energy project investment has been reasonably vigorous with the current five-year maximum permit duration and will likely continue to be, so long as decision-makers believe the vital government subsidies will be available for producers, and when renewable energy production requirements persuade investment decision-makers that power purchase agreements can be reached. And third, with respect to the claim that there is internal corporate competition for resources, even aside from the not-entirely-financial reason for investing in renewable projects, there is no meaningful competitive difference between a five-year renewable permit for eagle take and a properly monitored and enforced 30-year permit.

For administration of the BGEPA, however, the difference in permit duration is critical, because with a five-year permit that is renewable the permittee, who has the resources to gather the necessary information and a critical need to do so in order to secure permit renewal, is charged with regularly gathering and presenting that information. Under a 30-year permit duration, inertia, scarce resources, and the press of other work may mean that the permit stands unexamined or is cursorily reviewed for periods of time far exceeding five years.

The industry simply does not need 30-year programmatic eagle take permits or anything near that duration. Permits of short duration are not only more consistent with a commitment to preserve Bald and Golden Eagles, they are also entirely consistent with the goal of promoting responsible renewable energy development.

B. Short-Term, Renewable Permits Are the Norm for Businesses and Professionals That Require FWS Migratory Bird Permits on an Ongoing Basis.

Long-term programmatic eagle take permits would break substantially with current FWS practice with regard to permits for migratory birds. None of the many migratory bird permits offered by FWS are of longer duration than five years, and several are for even shorter time spans. These include permits that are used by businesses and wildlife professionals for ongoing activities, and some can be renewed,

just as the current system of five-year programmatic eagle take permits offers the possibility of permit renewal. Migratory bird permits offered for up to five-year durations include raptor propagation permits, taxidermy permits, waterfowl sale and disposal permits, special Canada Goose permits, and rehabilitation permits. Shorter duration permits include special purpose permits (up to three years), banding and marking permits (up to three years), scientific collecting permits (up to three years), and depredation permits (up to one year).[83]

COMMENT 6. Extending the Maximum Duration of Programmatic Take Permits to 30 Years is Inconsistent with Past Statements and Priorities Made by FWS.

A. Extending Permit Duration Conflicts with FWS's Rationale for Five-Year Permits and FWS Has Not Provided Any Scientific Evidence Showing That the Situation Has Changed Since 2009.

FWS stated in 2009 that five-year permits were the proper duration:

> The rule limits permit tenure to five years or less because factors may change over a longer period of time such that a take authorized much earlier would later be incompatible with the preservation of the Bald Eagle or the Golden Eagle. Accordingly, we believe that five years is a long enough period within which a project proponent can identify when the proposed activity will result in take.[84]

FWS has not provided any scientific evidence showing that the situation has changed since 2009 such that permits longer than five years would be compatible with eagle preservation.

B. Extending Permit Duration May Conflict with FWS's Commitment to at Least a Five-Year Review

In the 2009 Finding of No Significant Impact ("FONSI") for the eagle take permit rules, FWS stated,

> Because the Service will review take thresholds on a regular basis (at least once every five years) relative to eagle population and demographic

[83] See 50 C.F.R. Part 21 (Migratory Bird Permits).
[84] 74 Fed. Reg. at 46856.

> parameters, the Service will be able to modify or adjust permitting accordingly. . . . The periodic review and conservative approach to thresholds will mitigate the cumulative effects to eagle populations from the proposal and other reasonably-foreseeable activities conducted by other entities.
>
> In some regions of the country, particularly in the Southwest, cumulative effects from the proposed permit to eagles and habitat from all types of development and climate change may result in local population declines. Because the Service will review take thresholds on a regular basis relative to eagle population and demographic parameters, the Service will modify or adjust permitting accordingly.[85]

FWS's proposal to increase the maximum permit duration to 30 years does not provide for review of take thresholds and modification or adjustment of issued programmatic permits at least once every five years. If FWS does retain the five-year review of take thresholds, how would a reduction of the eagle take threshold that puts permitted take above the new threshold not conflict with an existing 30 year take permit? Would FWS require additional minimization and mitigation measures to bring eagle take below the new threshold for the time remaining on the permit?

C. Granting 30-year Programmatic Permits Could *De Facto* Change the Priority Order Established in the 2009 Rules.

The FEA for the 2009 eagle take permit rules established a priority order for eagle take permits: safety emergencies, Native American religious needs, non-emergency public health and safety activities, renewal of programmatic permits, and resource development or recovery operations (non-active Golden Eagle nests only).[86] FWS has proposed to lengthen the duration of only the programmatic take permits, and some permits regularly given are of much shorter duration, such as the annual Golden Eagle permits for Hopi religious take. Given FWS estimates of how many long-term permit applications it expects to receive, the delicate balance of this priority order could

[85] FWS, *Finding of No Significant Impact, Eagle Permits: Take Necessary to Protect Interests in a Particular Locality*, May 19, 2009, p. 4, available at http://www.fws.gov/migratorybirds/CurrentBirdIssues/Management/BaldEagle/FONSI_EagleRule.09.pdf.

[86] FWS, *Final Environmental Assessment, Proposal to Permit Take as Provided Under the Bald and Golden Eagle Protection Act* (April 2009), p. 38.

easily be disrupted if eagle take thresholds had to be reduced due to declining populations yet long-term programmatic take permits were still in place.

The Federal Register notice for the proposed extension of programmatic permit duration states, "the Service expects these permits, if approved, to be in high demand, particularly from wind power generator farms." Based on FWS estimates and reasonable extrapolations from those estimates, there could be an estimated 903 to 1,783 applications for ten- to thirty-year programmatic take permits between 2012 and 2041.[87] This potentially large number of permit applications could have a considerable impact on how many permits for other categories of take will be available and could thus foreseeably change the permit priority order originally set out by FWS in 2009. Golden Eagles are of particular concern, given the strong possibility that the species is undergoing population declines, the well-known problems with Golden Eagle mortality at wind energy facilities (e.g., California, Wyoming), and the interest in other types of Golden Eagle take permits (e.g., annual Hopi religious take permits).

D. Making This Rule Change without Tribal Consultation, as Is Acknowledged in the Federal Register Notice, Contradicts the Commitment to Government-to-Government Consultation FWS Made in the 2009 FONSI for the Eagle Take Permit Rules.

The Federal Register notice for the proposed rule change acknowledges that "we have not yet consulted with tribes regarding this proposed rule.[88] However, the 2009 FONSI states, "As we provided in 2.6.4.2 *Improved Implementation of Service Trust Responsibilities to Tribes*, the implementation guidance will contain guidelines for the Division of Migratory Bird Management on how to better implement government-to-

[87] Between 2012 and 2041, FWS estimates that it will receive between 561 and 1,108 applications for 30 year programmatic take permits. FWS provides additional lower-bound estimates of applications for 10 to 20 year programmatic take permits: 81 ten-year, 104 fifteen year, and 157 twenty year. FWS does not provide upper-bound estimates for these 10-20 year programmatic take permits. However, multiplying these lower-bound estimates by the same percentage as between FWS's lower-bound and upper-bound estimates for 30 year programmatic permits produces rounded upper-bound estimates of 160 ten-year, 205 fifteen year, and 310 twenty year programmatic take permit applications. See 77 Fed. Reg. at 22271–22272.

[88] 77 Fed. Reg. at 22276.

government consultation with Tribes, to which we have committed in this permit program."[89]

COMMENT 7. If Golden Eagles Are Listed Under the ESA During the Next 30 Years, 30-Year Permits Could Interfere with Their Recovery and Be Otherwise Ill Advised.

If Golden Eagles need to be listed as a threatened or endangered species, the species would likely be difficult to recover and possibly unrecoverable. A FWS raptor biologist spoke of the potential difficulty of this recovery at a 2010 Golden Eagle science meeting.[90] Under those circumstances, existing long-term eagle take permits would be a disadvantage to the recovery of the species and FWS might need to revoke many if not all long-term Golden Eagle take permits. Existing long-term programmatic permits might also be in violation of the ESA, depending on their environmental analysis and mitigation measures.

Moreover, we are concerned about how 30-year or other long-term programmatic permits, if instituted, would interact with the regulatory requirements of the ESA if the Golden Eagle, Bald Eagle, or a Distinct Population Segment of either species were to be listed by FWS in the future. It is our understanding and opinion that the permitting of take under the BGEPA would not authorize take under the ESA (as was the case for Bald Eagles prior to the species' delisting).

FWS has not adequately explained its view of the relationship between the BGEPA and ESA should either eagle species be listed under the ESA in the future. In particular, we request that FWS set forth its position by answering the following questions.

(1) If the Golden Eagle, Bald Eagle, or DPS of either species were listed as a threatened or endangered species, and a wind energy developer then later sought to construct a facility on private land that might result in eagle take, which permits would the developer need to obtain to avoid liability for incidental take:

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[89] FWS, *Finding of No Significant Impact, Eagle Permits; Take Necessary to Protect Interests in a Particular Locality*, May 19, 2009, p. 5.

[90] Jeep Pagel (FWS raptor ecologist), in *National Golden Eagle Colloquium Minutes and Notes, March 2–3, 2010, Carlsbad, California*, p. 22 [Attachment 3].

an ITP under the ESA, a programmatic take permit under the BGEPA, both permits, or a combined single permit?

(2) If a developer were issued a BGEPA programmatic permit for a wind facility on private land, and the Golden Eagle, Bald Eagle, or DPS of either species were then later listed as a threatened or endangered species during the life of the permit, would the existing programmatic take permit exempt the permittee from the take prohibition under ESA Section 9 or the need to apply for an ESA Section 10 ITP to avoid liability?

(3) If the permitted facility in (2) had a federal nexus at the time the BGEPA programmatic permit was issued (e.g., the project required fill of wetlands and a 404 permit issued by the Federal Government), would an ESA Section 7 consultation be required at the time of listing with respect to the eagle species covered by the programmatic permit?

It is important that FWS fully consider and explain its position on how these two statutes will likely function together in the future given the proposal to extend the maximum programmatic permit duration to 30 years.

PART II: PERMIT APPLICANTS MUST COMMIT TO IMPLEMENTING ADDITIONAL SPECIFIED MITIGATION MEASURES, IN THE CONTEXT OF AN ADAPTIVE MANAGEMENT PLAN, WHEN SUCH MEASURES ARE INDICATED.

SUMMARY

Regardless of the maximum duration of programmatic eagle take permits, FWS must require commitment from permit applicants to implement additional specified mitigation measures if take exceeds predicted levels or if monitoring or new scientific information indicates that such measures are necessary to protect eagles adequately. This commitment to implement specified mitigation measures, however, should not relieve the applicant of the obligation to continue to reduce the uncertainty regarding the effectiveness of specified measures, to develop new measures, and to implement promising but uncertain measures on an experimental basis, in the context of an

effective adaptive management plan that effectively triggers additional measures when indicated.

COMMENT 1. An Effective Adaptive Management Plan Should Include "Active" Adaptive Management.

In Part I, Comment 3, we explained that the risk factor documentation and fatality monitoring proposed in the Draft Eagle Conservation Plan Guidance would probably be insufficient to demonstrate whether many of the "additional" conservation measures listed in FWS's Draft Guidance – such as replacing existing horizontal turbines with new designs (e.g., vertical axis wind turbines), placing visual and/or auditory bird flight diverters in critical locations, adjusting turbine cut in speeds, or installing sound devices to disorient eagles – are effective for reducing eagle mortality. Answering the essential questions about what additional conservation measures to implement and whether they are effective in reducing eagle take requires the experimental context called for by "active" adaptive management beyond the limited observational monitoring called for in the Draft Guidance.[91]

If monitoring indicates that eagle take is higher than expected or that additional conservation measures are otherwise warranted, and data on the likely efficacy of candidate additional measures are not available prior to issuing a programmatic eagle take permit, then at least one candidate measure should be implemented in an experimental context if it may hold promise for reducing eagle take at the facility. The trigger for implementing the additional measure cannot depend upon evidence of the likely effectiveness or "necessity" of that measure since that evidence has not yet been collected. If that evidence had already been collected for a particular conservation measure, that measure would presumably have been considered for implementation at permit issuance to reduce eagle take to the "unavoidable" level.

[91] Terry L. Shaffer and Douglas H. Johnson, *Ways of Learning: Observational Studies Versus Experiments*, Journal of Wildlife Management, 72 (1): 4–13 (Jan. 2008).

COMMENT 2. Commitment From Permit Applicants to Implement Additional Specified Mitigation Measures Is an Essential Part of an Effective Adaptive Management Plan.

Commitment from the programmatic permit applicant to implement "additional specified mitigation measures," in circumstances where take exceeds predicted levels or if monitoring or new scientific information indicates that such measures are necessary to adequately protect eagles, is a necessary component of an effective adaptive management plan. In order for such measures to be "specified" in the adaptive management plan and permit from the beginning, these measures must at least be identified as potentially promising. Unless the permittee is required to implement additional mitigation measures when the monitoring data indicate that additional conservation measures are warranted, there would be no assurance that they would be carried out. The permittee as well as FWS must ensure that the permit issuance criteria – including the requirement that any permitted take of eagles must be reduced to the maximum degree technically achievable and thus "unavoidable" – continue to be satisfied over the life of the permit.[92]

PART III: IF PROGRAMMATIC TAKE PERMITS ARE MADE TRANSFERABLE, THERE MUST BE ENFORCEABLE FINANCIAL GUARANTEES THAT THE NEW PERMIT HOLDER WILL SATISFY THE PERMIT CONDITIONS

SUMMARY

Enforceable financial guarantees are needed for transfer of permits.

COMMENT 1. FWS Should Include a Financial Guarantee Requirement in the Rule.

FWS has proposed to make programmatic take permits transferable to new project owners, subject to conditions: "The permit would be subject to our determination that the successor meets all of the qualifications under this part for holding a permit; has provided adequate written assurances that it will provide

[92] 50 C.F.R. § 22.26.

sufficient funding for any applicable conservation plan or agreement and will implement the relevant terms and conditions of the permit, including any outstanding minimization and mitigation requirements; and has provided other information we determine is needed for processing the request."[93]

These conditions need to be strengthened in order to fully protect eagles. The renewable energy sector is highly volatile, as the recent U.S. history of renewable energy company sales and bankruptcies demonstrates. Therefore, it is not enough for the proposed rule to simply ask for "written assurances" of "sufficient funding," without specifying what would constitute a qualifying written assurance. Instead, enforceable financial guarantees, such as bonds, are needed and this requirement should be specified in the proposed rule.

PART IV: THIS PROPOSED RULE REVISION SHOULD NOT BE CATEGORICALLY EXCLUDED FROM NEPA ANALYSIS.

SUMMARY

The proposed revision to the maximum duration of programmatic take permits should not be categorically excluded under NEPA because the revision would have substantive effects on the terms and obligations of such permits, and would have controversial, highly uncertain, and far-reaching effects on eagle protection.

COMMENT 1. The Proposed Revision to the Maximum Duration of Programmatic Permits Is Not Strictly Administrative in Nature, But Rather Would Significantly Alter the Process for Permit Application and Review as Well as Significantly Alter the Take Limit and Substantive Approach to Eagle Protection; Therefore, the Proposed Revision Does Not Fall within the NEPA Categorical Exclusion Invoked by FWS.

NEPA requires that federal agencies consider the environmental effects of proposed actions before such actions are undertaken.[94] This requirement is usually

[93] 77 Fed. Reg. 22269 (April 13, 2012).
[94] 42 U.S.C. § 4332.

fulfilled by the preparation and publication of an EIS or an EA. However, when an agency determines that the proposed action falls within a category specifically excluded from NEPA consideration by regulations adopted by that agency, neither an EA nor an EIS is required.[95]

In its Federal Register notice announcing the proposed extension of the maximum tenure for programmatic eagle take permits to 30 years, FWS invokes a categorical exclusion in determining that no comprehensive NEPA consideration is required. Specifically, the agency states that the extension of programmatic eagle take permits to 30 years "is strictly administrative" and is therefore "categorically excluded from further NEPA requirements." The agency cites the categorical exclusion at 43 C.F.R. § 46.210(i), which provides, in pertinent part, that "[p]olicies, directives, regulations, and guidelines: that are of an administrative... nature" are "categorically excluded from NEPA analysis." The only justification offered by FWS in invoking this categorical exclusion is its statement that "[a] change in the permit tenure would not remove the permittee's obligation to comply with the provisions of the permit."

The phrases "strictly administrative" and "of an administrative... nature" are not defined in the statute or accompanying regulations, and have not been interpreted by a court in the context of the NEPA categorical exclusion. Common usage meanings of the phrase "strictly administrative" might include those things that are peripheral to the main focus of the task at hand, or that involve only minor technical changes and do not reach the substance of the matter that is at issue. Webster's Dictionary defines "administration" as "the execution of public affairs as distinguished from policy-making."[96] Likewise, Black's Law Dictionary defines an "administrative act" as "an act made in a management capacity."[97] These definitions reinforce the idea that something that is "strictly administrative" involves peripheral or technical matters and does not alter the substantive landscape of the field in which it occurs.

Programmatic take permits authorize a limited rate of unavoidable eagle take, with additional requirements and conditions triggered if the permittee exceeds the

[95] 40 C.F.R. § 1508.4.
[96] Webster's Dictionary Online, available at http://www.merriam-webster.com/dictionary/administration.
[97] Black's Law Dictionary, act (9th ed. 2009).

numerical take limit or if new information about the impacts of take arises. The proposed extension of the maximum programmatic permit duration from five to 30 years is not "strictly administrative," but rather would significantly alter the process for permit application and review, as discussed above, as well as significantly alter the numerical take limit and the substantive approach to eagle protection.

First, the extension of the maximum permit duration from five to 30 years would potentially change the primary substantive term imposed by the programmatic permit – the allowable take limit. The proposed extension would potentially increase the authorized take six-fold for each permit issuance. Such a change in the primary term of the eagle take permit is not properly classified as "strictly administrative."

Second, the proposed extension would potentially lead to significant changes to other substantive terms and obligations imposed by the programmatic permit. In particular, the permit's accompanying eagle conservation plan and adaptive management plan would likely require significant revision to reflect the potentially long duration, high uncertainty, and high allowable take limits of the permit. These plans would have to cover a period of time over which the project-level and cumulative impacts on eagles are highly uncertain, and must ensure that the project responds appropriately to a variety of changes without the benefits of a regular permit renewal process. Therefore, the proposed extension would not leave the substantive obligations of the permittee intact and unchanged, as FWS claims. While it may be true that an extension of the permit tenure does not free the permittee from all obligations imposed by a shorter-term permit, the proposed extension very likely would alter the substance of many of these obligations. A proposed change that poses so many significant changes to the substantive requirements of programmatic eagle take permits cannot be properly categorized as "strictly administrative."

An agency's decision to rely on a categorical exclusion is subject to judicial review.[98] Courts will overturn an agency's application of the categorical exclusion if such application is found to be arbitrary and capricious.[99] A court will set aside the

[98] See, e.g., *Reed v. Salazar*, 744 F.Supp.2d 98, 101 (D.D.C. 2010) (citing *Nat'l Trust for Historic Pres. v. Dole*, 828 F.2d 776, 781 (D.C. Cir. 1987)).
[99] See, e.g., *Citizen's Committee to Save our Canyons v. USFS*, 297 F.3d 1012, 1023 (10th Cir. 2002).

agency's interpretation of the categorical exclusion regulations when that interpretation is inconsistent with the terms of the regulation.[100] Here, FWS extends the terms of the categorical exclusion at 43 C.F.R. § 46.210(i) beyond their plain meaning. By interpreting the proposed action as "strictly administrative," the agency is essentially attempting to rewrite the regulation to fit a much wider scope of actions than is contemplated by the language of the categorical exclusion.

COMMENT 2. Even If the Proposed Revision to the Maximum Permit Duration Would Otherwise Fall Under 43 C.F.R. § 46.210(i), Several Extraordinary Circumstances as Set Forth in 43 C.F.R. § 46.215 Apply and Require at Least a Comprehensive Explanation of FWS's Conclusory Statement That the Proposed Revision Is Categorically Excluded Under NEPA.

When determining that a categorical exclusion from further NEPA analysis applies to a proposed action, the agency must consider whether any extraordinary circumstance exists so as to disqualify the action from categorical exclusion. The regulations at 43 C.F.R. § 46.210 specifically state that the actions listed are categorically excluded "unless any of the extraordinary circumstances... apply." These extraordinary circumstances are enumerated at 43 C.F.R. § 46.215.

If the agency determines that extraordinary circumstances are present with regard to an action that would otherwise be categorically excluded, the agency must prepare an EA for the proposed action.[101] The FWS's NEPA Reference Handbook makes this requirement explicit, recognizing that when "circumstances exist in which a normally categorically excluded action may result in significant impacts on the human environment, or if the action is covered by an [extraordinary circumstance], we must prepare an EA or EIS."[102]

Courts have consistently held that where substantial evidence exists suggesting that one or more extraordinary circumstances are applicable, the agency has a

[100] See, e.g., *Alaska Ctr. for Env't v. USFS*, 189 F.3d 851, 857 (9th Cir. 1999).
[101] *See Rhodes* at 790 ("We conclude that the presence of an extraordinary circumstance requires the [agency] to prepare an environmental assessment.").
[102] FWS NEPA Reference Handbook, 550 FWS 1 at p. 13, available at http://www.fws.gov/r9esnepa/NEPA_ HANDBOOK2.pdf.

heightened duty to adequately justify its decision in the record.[103] These courts have concluded that in such circumstances an agency must adequately explain its determination that no extraordinary circumstances are applicable, and the agency cannot instead offer only a brief, conclusory invocation of the categorical exclusion.[104]

Substantial evidence exists that one or more extraordinary circumstances apply to FWS's proposed rule revision, making FWS's conclusory invocation of the categorical exclusion inadequate. FWS is required to provide, at the very least, a more comprehensive explanation in the record of why the categorical exclusion applies in spite of this evidence. If FWS agrees that even one of the extraordinary circumstances discussed below applies to the proposed action, FWS must produce an EA and whatever other environmental documentation becomes appropriate.

A. The Proposed Revision Would Have Potentially Significant Effects on the Future Protection of Eagles as Mandated by Law, and Eagles Are Important Natural and Cultural Resources. (43 C.F.R. § 46.215(b)).

43 C.F.R. § 46.215(b) provides that an action involves extraordinary circumstances when it would "[h]ave significant impacts on such natural resources... as historic or cultural resources... [and] migratory birds." Eagles are uniquely situated as historical and cultural resources in the United States, serving as emblems of the history and authority of the American government and its people. Beginning with the adoption of the Great Seal of the United States by the Continental Congress in 1782, the Bald Eagle has served as a symbol of the Federal Government. Bald and Golden Eagles also hold an important place in the religious and cultural traditions of many Native American cultures. FWS has stated that it has "long recognized the religious and cultural significance of eagles to Native Americans."[105] In its Fact Sheet on the Bald Eagle, FWS consistently refers to the species as "our national symbol."[106]

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[103] *See, e.g., Reed v. Salazar*, 744 F.Supp.2d 98, 115–116 (D.D.C. 2010); *California v. Norton*, 311 F.3d. 1162, 1176 (9th Cir. 2002).
[104] *See Reed* at 116.
[105] FWS, *Golden Eagle Fact Sheet*, available at http://www.fws.gov/migratorybirds/NewReportsPublications/FactSheets/Golden_Eagle_Status_Fact_Sheet[1].pdf.
[106] FWS, *Bald Eagle Fact Sheet*, available at http://www.fws.gov/migratorybirds/NewReportsPublications/FactSheets/Bald_eagle_fact_sheet[1].pdf.

In addition to the status of Bald and Golden Eagles as historic and cultural resources of the United States, both the Bald and Golden Eagle appear on the list of bird species protected by the MBTA.[107]

The proposed rule revision would have potentially significant effects on Bald and Golden Eagles. As FWS itself stated in the context of establishing a five-year tenure limit for programmatic permits, "factors may change over a longer period of time such that a take authorized much earlier would later be incompatible with the preservation of the Bald Eagle or the Golden Eagle."[108] Uncertainties in estimates of population abundance, in predicting the effects of climate change on migration and habitat-use patterns, and in predicting the frequency and extent of stressors such as fire, among other uncertainties, make the task of creating appropriate long-term management plans difficult. This problem of uncertainty and limited prediction ability will be greatly exacerbated if the maximum duration of programmatic permits is extended from five to 30 years. As discussed above, these pervasive uncertainties are best controlled by subjecting relatively short-term eagle take permits to agency evaluation and modification within a periodic permit renewal process; reliance on amendment and suspension of existing long-term take permits, where the burden of proof is shifted to the agency, is an inferior process for controlling such uncertainties and will potentially result in significant reductions in eagle protection and preservation.

Furthermore, the proposed extension in permit duration may interact with related regulations to create unforeseen cumulative impacts that could also compromise the protection of eagles. For instance, the proposed revision in permit duration is directly related to and would interact with the potential revisions to the 2009 BGEPA permitting rules as outlined in 77 Fed. Reg. 22278 (April 13, 2012). Those latter revisions also would have potentially significant effects on eagle populations. In addition, the regulations and actions of other nations may interact in unforeseen ways with the proposed tenure extension; eagles do not recognize national boundaries and migration patterns often result in widespread international population shifts. For

[107] FWS, *Birds Protected by the Migratory Bird Treaty Act*, available at http://www.fws.gov/migratorybirds/RegulationsPolicies/mbta/mbtandx.html#e.
[108] 74 Fed. Reg. at 46856.

example, Golden Eagles that migrate across the U.S.-Mexico and U.S.-Canada borders will suffer cumulative impacts from Mexican and Canadian wind energy installations, and those impacts will be much more difficult to account for over a long time period, during which time wind installations on both sides of the border are likely to become much more widespread.

Bald and Golden Eagles are historic and cultural resources, and both species are protected migratory birds. Actions with the potential to significantly impact eagles, therefore, create extraordinary circumstances, making the conclusory invocation of a categorical exclusion to NEPA analysis invalid. FWS must at the very least undertake a comprehensive explanation of why such extraordinary circumstances do not apply in this case. Otherwise, FWS must complete an EA or EIS before proceeding with the proposed rule revision.

B. The Proposed Revision Would Have Highly Controversial Effects on Eagle Protection. (43 C.F.R. § 46.215(c)).

43 C.F.R. § 46.215(c) provides that an action involves extraordinary circumstances when it would "[h]ave highly controversial environmental effects." The FWS proposal to increase the maximum duration of programmatic take permits to 30 years is likely to be highly controversial, as evidenced by the general controversy surrounding take of eagles. For this reason, FWS should not invoke the categorical exclusion from further NEPA analysis, but should recognize the existence of this extraordinary circumstance and prepare an EA or EIS.

The controversial nature of programmatic eagle take permits was recently demonstrated in the public's response to the first proposed programmatic eagle take permit, for the West Butte Wind Project in Oregon. FWS received roughly 125 unique comments and two petitions with thousands of signers total; these petitions and many of the comments urged FWS to deny the permit.[109] The petition signers were from all over the United States, as well as at least three dozen countries and territories.[110] In

[109] Personal comms. between Kelly Fuller and FWS Portland field office staff on February 18, 2012.
[110] These included Austria, Australia, Bangladesh, Belgium, Brazil, Bulgaria, Canada, Central African Republic, Denmark, France, Germany, Greece, Hungary, India, Ireland, Italy, Japan, Lithuania, Malta, Mexico, Netherlands, New Zealand, Norway, Paraguay, Poland, Portugal, Romania, Slovenia, South Africa, Spain, Sweden, Switzerland, Taiwan, United Kingdom , Venezuela, and U.S. Virgin Islands

addition, several conservation and scientific groups sent letters critical of the first programmatic take permit's draft EA.[111] Controversy over this first programmatic take permit was also visible in the media; for example, an online article about the permit that appeared on a national news website resulted in more 1,100 comments from the public on the article's webpage, many opposing the permit in the strongest terms.[112] Moreover, since publication of FWS's proposal to extend the duration of programmatic eagle take permits, guest opinions and newspaper editorials denouncing the proposed change have appeared in news outlets across the United States.[113]

Several federal courts have addressed the issue of extraordinary circumstances triggered by public controversy surrounding a proposed agency action. In *Jones v. Gordon*, the Ninth Circuit held that the record revealed "the arguable existence of public controversy based on potential environmental consequences" because it contained a number of public comments opposing the issuance of a permit allowing the take of killer whales.[114] Because of the potential existence of this controversy, the Ninth Circuit held that the agency had improperly invoked a categorical exclusion, and should instead have engaged in more comprehensive environmental analysis.[115] Likewise, the court in *California v. Norton* held that the existence of a public controversy surrounding the issuance of leases for offshore drilling rendered invalid the agency's reliance on a categorical exclusion from NEPA analysis, requiring instead that the agency at the very least include in the record a comprehensive explanation of why extraordinary

[111] Conservation and scientific groups that sent critical letters included American Bird Conservancy, Audubon Society, Black Swamp Bird Observatory, Defenders of Wildlife, National Resources Defense Council, National Wildlife Federation, Oregon Natural Desert Association, and Raptor Research Foundation.

[112] See MSNBC.com, *Feds propose allowing wind-farm developer to kill golden eagles* (January 4, 2012), available at http://usnews.msnbc.msn.com/_news/2012/01/04/9952873-feds-propose-allowing-wind-farm-developer-to-kill-golden-eagles?lite.

[113] Below is a small sampling currently available online:

- http://www.timesherald.com/article/20120522/OPINION03/120529815/murdock-team-obama-put-eagles-on-green-energy-altar;
- http://www.pe.com/opinion/editorials-headlines/20120607-nation-wind-driven-blunder.ece
- http://www.kcet.org/updaily/the_back_forty/wildlife/eagles-may-be-latest-casualty-of-renewables-policy.html
- http://thesunrunner.com/2012/05/22/desert-residents-fight-to-save-bald-eagles-from-industrial-wind-energy;
- http://www.nj.com/times-opinion/index.ssf/2012/06/opinion_american_eagle_day_pro.html

[114] *Jones v. Gordon*, 792 F.2d 821, 828 (9th Cir. 1986).

[115] *Jones v. Gordon*, 792 F.2d at 826-29.

circumstances did not apply.[116] According to the court, a failure to provide an adequate explanation would require the agency to prepare an EA or EIS.[117]

FWS's reliance on a categorical exclusion in this case is similarly improper. The decision to extend programmatic eagle take permits from five to 30 years is bound to be highly controversial, particularly when combined with the associated proposed changes to the eagle take rules.[118] Given the symbolic and cultural importance of eagles, as discussed above, the harming or killing of even a few eagles is itself controversial. The proposed extension of the maximum tenure for programmatic permits 30 years would undoubtedly result in increased take of eagles per permit period. An increase of the sanctioned killing of Bald and Golden Eagles on this scale, even if it would not by itself result in a threat to the continued existence of either species, cannot hope to be anything but highly controversial. Where there is substantial evidence of the existence of extraordinary circumstances, of which the existence of public controversy is one, the agency must at the least provide more than a conclusory invocation of a categorical exclusion, and must instead offer a comprehensive explanation of why such extraordinary circumstances do not apply. FWS has offered no such explanation. FWS's proposal should not be categorically excluded from further NEPA analysis.

C. The Proposed Revision Would Have Highly Uncertain and Potentially Significant Effects on Eagle Protection, with Those Effects Becoming More Uncertain the Further into the Future They Are Projected. (43 C.F.R. § 46.215(d)).

43 C.F.R. § 46.215(d) provides that an action involves extraordinary circumstances when it would "[h]ave highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks." Uncertainty about the long-term environmental effects of a proposed action, coupled with the potential for those effects to be significant, creates an extraordinary circumstance such that invocation of a categorical exception to NEPA analysis is inappropriate.

As FWS has previously recognized, "factors may change over a longer period of time such that a take authorized much earlier would later be incompatible with the

[116] *California v. Norton*, 311 F.3d 1162, 1177-78 (9th Cir. 2002).
[117] *California v. Norton*, 311 F.3d at 1177-78.
[118] 77 Fed. Reg. at 22278.

preservation of the Bald Eagle or the Golden Eagle."[119] Additionally, the service has stated that "[o]verall, our data for Golden Eagles are not as comprehensive as for Bald Eagles, and, under the Eagle Act, we cannot issue take permits for Golden Eagles unless we have enough data to make the determination that the take to be authorized will be compatible with the preservation of Golden Eagles."[120] Both of these statements were made in the context of five-year programmatic eagle take permits. Obviously, the problems associated with uncertainty and the potential to overlook significant future impacts are increased when the duration of the permit is extended. When that duration is extended six-fold, as the current proposed revision would potentially do, these issues create extraordinary circumstances justifying more comprehensive environmental analysis.

The uncertainties associated with long-term Bald and Golden Eagle protection were highlighted in a presentation by FWS scientists that discussed the "basic knowledge gaps" that exist with regard to eagle data. Those knowledge gaps include age-specific survival rates, natal and breeding dispersal characteristics, breeding population size, and long-term occupancy and productivity.[121] An additional complicating factor in projecting the long-term effects of an action on Bald and Golden Eagles is the difficulty in estimating the population abundance and distribution of prey animals over a long period of time. Reliable models for projecting the populations of jackrabbits and California ground squirrels (two primary prey species) do not exist.[122] In addition, the long-term population trend for Greater Sage-Grouse is uncertain, which increases the difficulty of estimating Golden Eagle populations over time. Greater Sage-Grouse is an important prey species for Golden Eagles and is currently a candidate for listing as an endangered species due to steep population declines and large-scale destruction of its habitat.

[119] 74 Fed. Reg. at 46856.
[120] 74 Fed. Reg. at 46867.
[121] Whittington, et al. 2010, *Long-term Strategies and Information Needs for Conserving Golden Eagles (Aquila chrysaetos) and Bald Eagles (Haliaeetus leucocephalus) in an Energy Development Environment*, slide 6, available online at http://www.rmrp.info/presentations/Whittington001.pdf.
[122] Grainger Hunt, California Energy Commission, *Golden Eagles in a Perilous Landscape: Predicting the Effects of Mitigation for Wind Turbine Blade-Strike Mortality*, CEC Consultant Report 2002, p. 14.

Taken together, the multiple uncertainties regarding Bald and Golden Eagles constitute substantial evidence that the extraordinary circumstance in 43 C.F.R. § 46.215(d) applies to FWS's proposed rule revision. Where there is substantial evidence of the existence of extraordinary circumstances, the agency must at the least provide more than a conclusory invocation of a categorical exclusion, and must instead offer a comprehensive explanation of why such extraordinary circumstances do not apply. FWS has offered no such explanation.

FWS's proposal should not be categorically excluded from further NEPA analysis.

D. The Proposed Revision Would Represent a Decision in Principle About the Duration of All Future Programmatic Eagle Take Permits, with Potentially Significant Effects on Eagle Protection. (43 C.F.R. § 46.215(e)).

43 C.F.R. § 46.215(e) provides that an action involves extraordinary circumstances when it would "represent a decision in principle about future actions with potentially significant environmental effects." FWS's proposed revision to the maximum programmatic permit duration from five to 30 years represents such a decision, and therefore should not be subject to this categorical exclusion invoked by FWS.

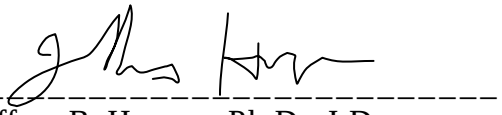
In its Federal Register notice announcing the proposed rule revision, FWS stated that the five-year tenure limit for programmatic eagle take permits "need[s] to be extended to better correspond to the timeframe of renewable energy projects." This revision would allow FWS to issue 30-year programmatic take permits going forward, as well as allow for the revision of existing permits to reflect the extended maximum duration. If FWS believes, as the record indicates, that long-term permits are "needed" to facilitate wind industry projects, then the decision to allow for long permit duration represents a decision in principle to actually issue such long-term eagle take permits in the future. The potentially significant threat to eagle protection represented by this extension has been described in detail elsewhere in these Comments.

FWS's proposed rule revision is a decision in principle about future actions with potentially significant effects for the protection of Bald and Golden Eagles, and thus the extraordinary circumstance in 43 C.F.R. § 46.215(e) applies. Where there is substantial

evidence of the existence of extraordinary circumstances, the agency must at the least provide more than a conclusory invocation of a categorical exclusion, and must instead offer a comprehensive explanation of why such extraordinary circumstances do not apply. FWS has offered no such explanation. FWS's proposal should not be categorically excluded from further NEPA analysis.

In closing, thank you for this opportunity to comment. The BGEPA could be a strong tool for facilitating both wildlife conservation and wind power, but it will require careful planning and implementation. We look forward to further participation in the rulemaking processes as they develop. Please add CLC and ABC to the notification list for these processes, using the names and contact information below.

Sincerely,



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