



August 3, 2009

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Re: Request for Public Comments Regarding Potential Changes to Section 7 Consultation Regulations, Docket # FWS-R9-ES-2009-0031, 74 Fed. Reg. 20421 (May 4, 2009)

Dear Sir/Madam:

These comments are submitted by Mary Jane Angelo, Holly Doremus, Daniel J. Rohlf, and James Goodwin. We submit these comments in response to the invitation for public comments announced in the *Federal Register* notice published on May 4, 2009.

Mary Jane Angelo is an Associate Professor of Law at University of Florida Levin College of Law; Holly Doremus is a Professor of Law at University of California, Berkeley; and Daniel J. Rohlf is an Associate Professor of Law at Lewis and Clark Law School. Professors Angelo, Doremus, and Rohlf all specialize in environmental and natural resources law. All are Member Scholars of the Center for Progressive Reform (CPR or Center). James Goodwin is a Policy Analyst with CPR.

CPR is an organization of academics specializing in the legal, economic, and scientific issues that surround federal regulation. CPR's mission is to advance the public's understanding of the issues addressed by the country's regulatory laws. CPR is committed to developing and sharing knowledge and information, with the ultimate aim of preserving the fundamental value of the life and health of human beings and the natural environment. One component of our mission is to circulate academic papers, studies, and other analyses that promote public policy based on the multiple social values that motivated the enactment of our nation's health, safety and environmental laws.

**Introduction**

On May 4, 2009, the Departments of Interior and Commerce (Departments) published a rule withdrawing the Bush administration's last-minute revisions to the ESA section 7

consultation regulations, as authorized by Congress in the 2009 Omnibus Appropriations Act. 74 Fed. Reg. 20421. In the preamble to the withdrawal rule, the Departments noted that “[r]eturning to the status quo ante will allow time for a thorough and thoughtful review while still ensuring that listed species and critical habitat are not impacted negatively.” As a first step toward that “thorough and thoughtful review,” the Departments invited the submission of comments “related to ways to improve the section 7 regulations while retaining the purposes and policies of the ESA.”

We welcome both the withdrawal rule and the call for comments. We urge the Departments to undertake the thorough and thoughtful review promised. In this document, we briefly identify several issues that should be addressed in that review, including:

- The scope of the consultation mandate;
- The regulatory definitions of “cumulative effects” and “indirect effects”;
- The regulatory definitions of “destruction or adverse modification of critical habitat,” and “jeopardize the continued existence of;”
- The roles of the Services and action agencies in determining whether or not formal consultation is necessary;
- The need for consultation on decisions made under other environmental laws;
- The need for better tracking of section 7 effort and outcomes; and
- How consultation should deal with the problem of global climate change.

Because the available information is thin and many of the issues are difficult, we offer detailed prescriptions for change on only some of these issues. For others, we simply explain why they should be on the table in any thorough review. We look forward to further opportunities for input as the Departments’ proceed.

### **1) Identifying “Agency Actions” Requiring Consultation**

**We recommend that the Departments revisit 50 C.F.R. § 402.03 to clarify that the consultation requirement applies to all agency actions, both discretionary and non-discretionary. In particular, we recommend deleting the word “discretionary,” so that § 402.03 reads as follows: “Section 7 and the requirements of this Part apply to all actions in which there is Federal involvement or control.”**

The plain language of the ESA requires that action agencies consult with the U.S. Fish and Wildlife Service (FWS) or the National Marine Fisheries Service (NMFS), as appropriate, for “any action authorized, funded, or carried out by such agency.”<sup>1</sup> Accordingly, any regulation that purports to narrow the universe of federal actions subject to consultation would seem to be unlawful. Nevertheless, in 2007 the U.S. Supreme Court ruled by a narrow 5-4 vote that the Departments acted within the scope of their discretion in interpreting ESA § 7 to apply only to discretionary federal actions.<sup>2</sup> The *NAHB* majority, applying *Chevron* analysis, concluded that ESA § 7(a)(2) is ambiguous and that the Departments’ interpretation was reasonable. It therefore deferred to that interpretation. We disagree with the *NAHB* majority’s *Chevron* analysis. Be that as it may, nothing in *NAHB* purports to limit the Departments’ authority to interpret § 7 more broadly.

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<sup>1</sup> 16 U.S.C § 1536(a)(2) (emphasis added).

<sup>2</sup> National Association of Home Builders (NAHB) v. Defenders of Wildlife, 127 S.Ct. 2518 (2007).

Requiring consultation on all federal actions will better serve the purposes of the ESA. As the Supreme Court recognized earlier in the landmark case of *TVA v. Hill*,<sup>3</sup> Congress intended the ESA as a comprehensive bulwark against human-caused extinction.<sup>4</sup> In *Hill*, the Court noted that previous versions of endangered species legislation had contained significant loopholes (*e.g.*, directing federal agencies to protect endangered species “insofar as it is practicable”) that rendered them ineffective.<sup>5</sup> The Court concluded that when Congress passed the present version of the ESA, it meant to eliminate such loopholes.<sup>6</sup> Limiting consultation to “discretionary” actions creates a new loophole, and one that is especially problematic because it may be quite difficult to determine whether a particular action is “discretionary.” That uncertainty encourages litigation and the kinds of political pressure tactics that have long plagued ESA implementation.<sup>7</sup>

Limiting consultation to discretionary actions makes it especially difficult for the ESA to deal with “legacy effects”—that is, the lasting consequences of federal actions begun before Congress adopted the ESA or before a particular a species was listed.

As the persistent conflicts over water projects make clear, decisions that long pre-date the ESA continue to threaten the viability of the nation’s biota. The Supreme Court in *TVA v. Hill* rejected the argument that decisions pre-dating the ESA are exempt from its requirements.<sup>8</sup> With the ESA, Congress intended to force federal agencies, and ultimately the nation, to confront these legacy threats. That does not mean that development that affects wildlife must always be undone. Congress retains the power to exempt specific actions or classes of actions from the ESA, as it ultimately did the Tellico Dam. But those choices should be made openly and after due deliberation. Limiting consultation to “discretionary” actions interferes with that process by potentially allowing agencies to ignore serious effects on listed species that might be avoidable.

## **2) Definition of Cumulative and Indirect Effects**

**We recommend that the Departments amend the regulatory definitions of “cumulative effects” and “indirect effects” in 50 C.F.R. § 402.06 to more closely align with the Council on Environmental Quality’s guidelines for implementing the National Environmental Policy Act (NEPA).**

Currently, the consultation regulations define “cumulative effects” as “those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation.” That should be

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<sup>3</sup> 437 U.S. 153 (1978).

<sup>4</sup> *Id.* at 173-80.

<sup>5</sup> *Id.* at 174-176.

<sup>6</sup> *Id.* at 180.

<sup>7</sup> *See, e.g.*, J.R. DeShazo & Jody Freeman, *The Congressional Competition to Control Delegated Power*, 81 TEX. L. REV. 1443 (2003); Amy Whritenour Ando, *Waiting to Be Protected Under the Endangered Species Act: The Political Economy of Regulatory Delay*, 42 J. L. & ECON. 29 (1999). The question of whether a particular agency action is “discretionary” has already produced lengthy litigation in a case involving the Federal Emergency Management Agency’s implementation of the National Flood Insurance Program in Florida. *See, e.g.*, *Florida Key Deer v. Paulison*, 522 F.3d 1133 (11th Cir. 2008).

<sup>8</sup> *TVA v. Hill*, 437 U.S. 153, 173 (1978).

changed to cover—like its counterpart term under NEPA<sup>9</sup>— the effects of future federal actions, and of all future actions that are “reasonably foreseeable,” rather than “reasonably certain to occur.” The definition of “indirect effects” should also—like its counterpart term under NEPA<sup>10</sup>—include all effects that are “reasonably foreseeable.”

These changes would have four desirable consequences. First, they would simplify the coordination of consultation with NEPA analysis. Second, they would encourage coordination and information-sharing among federal agencies whose actions affect the same species, providing an opportunity for advance planning rather than ad hoc grabbing for the last available increment of habitat destruction. Third, it would help FWS and NMFS insure that the full scope of impacts from a series of federal actions conducted over time is taken into account during consultations. The impact of future federal actions are currently not considered as part of the consultation process on the theory that these impacts will be considered when they are subject to a § 7 consultation. In practice, however, there is no guarantee that the consultation for the later agency action will adequately consider the impacts of earlier agency action. As such, there is no guarantee that FWS or NMFS will ever see a complete picture of how both the earlier and later actions may affect a particular species. Without a complete picture of the cumulative impacts of actions taken by federal agencies, however, FWS and NMFS cannot insure adequate protection of that species, since they may not be aware of the extent to which earlier-approved actions have already affected the species.

And fourth, they would encourage both action agencies and the Services to take a more realistic look at the future of affected species. In their present form, these regulatory definitions foster a myopic analysis which ignores some highly likely future events. That works to the detriment of the protected species. Proposed actions are more likely to clear the “jeopardy” and “no adverse modification” hurdles if future federal actions and other actions which are foreseeable but not yet reasonably certain are considered. But the Services will have no opportunity to review or prevent those foreseeable non-federal actions, and it may be politically difficult to say no to future federal actions.

### **3) The Definitions of “Destruction or Adverse Modification of Critical Habitat” and “Jeopardize the Continued Existence of”**

#### **Definition of “Destruction or Adverse Modification of Critical Habitat”**

Given that appellate courts—most recently the Ninth Circuit in *Gifford Pinchot Task Force v. Fish and Wildlife Service*, 378 F.3d 1059 (9th Cir. 2004)—have held the current regulatory definition of this term unlawful, the Services clearly need to revise this definition. After the Ninth Circuit’s decision in *GP Task Force*, FWS issued guidance to agency staff for applying the “destruction of adverse modification” standard. This document (dated December 9, 2004) instructs agency personnel to analyze “whether, with implementation of the proposed Federal action, critical habitat would remain functional (or retain the current ability for the primary constituent elements to be functionally established) to serve the intended conservation role for the species.” NMFS has not issued general guidance on interpreting this standard after

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<sup>9</sup> 40 C.F.R. § 1508.7.

<sup>10</sup> 40 C.F.R. § 1508.8(b) (2009) (defining the term “[i]ndirect effects”).

the *GP Task Force* ruling, but in applying the destruction or adverse modification standard since 2004 NMFS has taken an approach similar to that expressed in FWS' guidance.

Most importantly, the new definition of “destruction or adverse modification” must further what the Ninth Circuit described as “the recovery goal of critical habitat.” *Gifford Pinchot*, 378 F. 3d at 1070. The court went on to observe that “the purpose of establishing ‘critical habitat’ is for the government to carve out territory that is not only necessary for the species' survival but also essential for the species' recovery.” *Id.* Accordingly, the definition of “destruction or adverse modification” must make it clear those federal agency actions which alter critical habitat in such a way as to diminish the value of this habitat for the *recovery* of listed species falls within the definition.

The current definition of “destruction or adverse modification” encompasses impacts to critical habitat that diminishes its value to the “survival and recovery” of listed species. While a new definition could include both the terms “survival” and “recovery,” the definition should be phrased disjunctively, to include actions that would diminish the value of critical habitat for the “survival *or* recovery” of listed species.

The new regulatory definition of “destruction or adverse modification” should also modify the manner in which the Services assess whether impacts likely to be caused by a proposed federal agency action will meet this standard. Currently, the Services' joint Section 7 Consultation Handbook provides that a critical habitat assessment “focuses on the entire critical habitat area designated unless the critical habitat rule identifies another basis for analysis.” Handbook at 4-39. In other words, unless the impacts of a proposed agency action is likely to appreciably diminish the value of the *entire area* of designated critical habitat to the recovery of an affected species, the Services will conclude that a proposed action does not destroy or adversely modify critical habitat. For example, biological opinions issued within recent years by FWS assessing timber harvest proposals that would essentially eliminate substantial old growth spotted owl habitat within designated critical habitat concluded that no “destruction or adverse modification” was likely because the proposed action would not appreciably diminish the value of the *entire* area of designated spotted owl critical habitat, which consists of millions of acres of forest. In other words, by comparing relatively small timber harvest proposals (affecting thousands of acres) against the total area of designated spotted owl critical habitat (consisting of millions of acres), FWS determined that severely degrading or even eliminating extensive areas of old growth habitat within designated critical habitat did not constitute “destruction or adverse modification” of that critical habitat. Overall, by setting the baseline for comparison employed in individual critical habitat consultations as the entirety of critical habitat designated for the species, the Services have made it extremely unlikely that an individual proposal's impact on designated critical habitat—even if it degrades or even eliminates extensive areas or primary constituent elements of critical habitat—will ever rise to the level of constituting “destruction or adverse modification.” This analytical methodology is simply a recipe for incremental destruction and adverse modification of critical habitat without calling it such, and severely reduces section 7 protections for all designated critical habitat.

The new definition of “destruction or adverse modification” should specify a basis for analyzing whether a proposed federal action constitutes “destruction or adverse modification” which eliminates the Services' current practice of virtually sanctioning piecemeal elimination

and degradation of critical habitat. By definition, areas designated as critical habitat are *essential* to the recovery of listed species. 16 U.S.C. 1532(5)(A)(i). Accordingly, a method of assessing whether proposed actions destroy or adversely modify critical habitat which permits designated critical habitat to be degraded or eliminated without triggering the “destruction or adverse modification” standard does not comport with the statute. The Services could remedy this problem relatively easily with a modest modification of the language of the current regulatory definition. The current definition provides that destruction or adverse modification means “a direct or indirect alteration that appreciably diminishes the value of critical habitat,” wording which does not specify the area of critical habitat to which the definition refers. *See* 50 C.F.R. 402.02. The Services should modify this wording to specify that destruction or adverse modification means “a direct or indirect alteration that appreciably diminishes the value of critical habitat within the action area of the proposed agency action under consideration . . . .” By setting the relevant analytical framework as the action area of the proposed agency action under consideration, the Services would be able to largely eliminate incremental loss of critical habitat and thus protect the area determined by the Services to be essential to species recovery.

#### Definition of “jeopardize the continued existence of”

The current regulations’ definition of jeopardy is based upon a 1981 Solicitor’s Opinion, which posited the notion of a “resource cushion” available for incremental allocation to federal agency actions. In other words, each listed species can withstand only a finite level of cumulative adverse impacts before its continued existence is “jeopardized.” But if current conditions are better for the species, this creates a resource “cushion” for the species, which new federal agency actions can—in the words of the Solicitor—“consume” by having adverse impacts on the species until this cushion is gone and any additional incremental adverse impacts would put the species in jeopardy. Another analogy for this analytical process for determining jeopardy is the straw that breaks the camel’s back; one can keep piling straws on the camel, but must stop just before the next straw breaks the camel’s back.

Most importantly, this idea of jeopardy is flawed from a biological standpoint. NMFS made this point most succinctly in an August 26, 1999 white paper discussing threatened and endangered salmonids in the Pacific Northwest, entitled *The Habitat Approach*. There, NMFS recognized that “[i]mpeding a species’ progress toward recovery exposes it to additional risk, and so reduces its likelihood of survival. Therefore, in order for an action to not appreciably reduce the likelihood of survival, it must not prevent or appreciably delay recovery.” In other words, even maintaining the status quo places threatened and endangered species at additional risk; small populations face higher risks over time as a result of demographic and genetic stochasticity, as well as due to potential environmental catastrophes. Therefore, defining the jeopardy standard as allowing federal agency action to continue to *increase* listed species’ risk of extinction (up to some hypothetical stopping point) is itself, from a biological standpoint, jeopardizing listed species’ continued existence.

The current definition of jeopardy also substantially impedes efforts to achieve the ESA’s primary goal, to recover listed species. Allowing federal agency action to continue to push species closer to extinction (again, limited only by some hypothetical stopping point) makes it far more difficult and expensive to recover these species.

Additionally, the Services lack the resources and analytical tools to adequately implement their current approach to determining jeopardy. Returning to the camel analogy for jeopardy, if one wants to avoid breaking the camel's back, one must at least keep track of how many straws have been added to the camel's load. However, a May 2009 report by the General Accounting Office revealed that FWS is almost completely incapable of keeping track of the cumulative total of adverse impacts on listed species, meaning that though the agency theoretically makes jeopardy determination on the basis of determining whether too many adverse impacts on a particular species have accumulated so as to completely consume any available "resource cushion," in reality—with the possible exception of only four listed species—FWS has no way of keeping track of how many adverse impacts to the species have in fact accumulated over its range, and thus no way of knowing whether the species' "resource cushion" is completely gone or not. NMFS also lacks any systematic tools for tracking accumulated impacts to listed species. The GAO's findings thus call into serious question the validity of nearly every jeopardy determination the Services make.

Finally, while they acknowledge that climate change presents an overwhelming risk to the continued existence of many listed species, the Services have expressed serious reservations as to whether the agencies' current analytical methods for assessing jeopardy could be used to assess risks posed by climate change; the Services cited such uncertainty in effectively exempting greenhouse gas emissions from section 7 altogether in regulatory revisions that the current Administration recently overturned—an action that led to this very comment opportunity. There is no doubt that the "resource cushion" method of defining jeopardy makes it extremely difficult if not virtually impossible to assess the risks to listed species stemming from additional greenhouse gas emissions. However, it is imperative that one of the United States' most important legal mechanisms for protecting biodiversity—section 7 of the ESA—not turn a blind eye toward the most significant threat to the Nation's biological resources.

To resolve the issues noted above, the Services should re-write the regulatory definition of "jeopardize the continued existence of." It should replace the current definition with an approach similar to the "no net loss" policy for wetlands for *new federal actions*. Under this approach, a proposed new federal agency action would jeopardize the continued existence of a listed species if the action had a net adverse impact on the listed species, subspecies, or distinct population segment. In other words, at a minimum, this new definition would not allow new federal actions to cause any net worsening of a listed species' status. Some proposed new actions clearly could not meet such a standard on their own, so as in the wetlands context, a federal agency proposing an action that is likely to adversely affect a species would have to include as part of its proposal other actions that would fully mitigate for all adverse impacts. Note, however, that this definition may not be sufficient to protect listed species in the context of *ongoing federal actions*. In this context, a decision to maintain the current conditions created by an ongoing agency action may literally result in no net adverse impact on a listed species, but by perpetuating adverse conditions could nonetheless threaten the listed species with extinction. In other words, the "no net adverse effect" standard should not be allowed to foreclose consideration of the possibility that the impacts of an ongoing federal action need to be "ratcheted down" in terms of its impacts on a listed species in order to avoid causing jeopardy to that species. Accordingly, the Services will need to consider different strategies for implementing the "no net adverse effect" standard flexibly in the context of ongoing federal actions.

Defining jeopardy in this manner would eliminate current problems in tracking both species' status and the incremental adverse impacts to these species and their habitat over time by making these considerations irrelevant to jeopardy determinations. In assessing whether a proposed federal action jeopardized the continued existence of a listed species, FWS or NMFS would simply have to assess whether the action had a net adverse impact on the affected species. If FWS or NMFS did find a net adverse impact – and thus jeopardy – it could simply specify a reasonable and prudent alternative to the proposed action that made the action's net impact on the species neutral or better.

This definition of jeopardy is also particularly well-suited to deal with proposed federal agency actions that would increase greenhouse gas emissions. Such actions would jeopardize the continued existence of any species listed as threatened or endangered in whole or part due to climate change unless the federal agency identified elements of the proposed action that made the action as a whole carbon (or greenhouse gas) neutral. In other words, if a federal agency avoided or offset its greenhouse gas emissions, the action's climate effects would not jeopardize listed species imperiled by climate change. While some may raise policy arguments against such a standard by labeling it too tough and thus is impossible to achieve, there is a wide scientific consensus that humans need to decrease greenhouse gas emissions by 80% over the next few decades in order to avoid a climate catastrophe. Recognizing this fact, proposals currently in Congress call for setting a national policy to pursue such dramatic reductions, including mandating immediate net decreases in greenhouse gas emissions. Accordingly, a jeopardy standard under the ESA premised on merely causing no net *increase* under the ESA represents only a very modest step toward addressing the vast dangers – to listed species as well as to humans – posed by climate change.

#### **4) Determining Whether an Action May Adversely Affect a Listed Species**

The Bush administration's revised regulations, which were withdrawn in May, would have allowed action agencies to determine on their own that consultation was not required in certain circumstances. Those provisions in the Bush rules were unlawful, would threaten the survival of listed species, and were not shown to be necessary for efficient administration. CPR trusts that the Departments will not propose any similar provisions through this review.

The ESA requires that all federal agencies “in consultation with and with the assistance of” the Services, “insure” that their actions are “not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification” of critical habitat. 16 U.S.C. § 1536(a)(2). “To facilitate compliance with” that provision, the statute requires that federal agencies considering actions ask FWS and NMFS whether any listed species may be present within the action area. 16 U.S.C. § 1536(c)(1). If so, the action agency must complete a biological assessment “for the purpose of identifying any endangered species or threatened species which is likely to be affected.” The regulations currently in effect require that the action agency submit its biological assessment to FWS or NMFS for review, and initiate formal consultation *unless the wildlife agency concurs in writing that the action was not likely to adversely affect any listed species.* 50 C.F.R. §§ 402.12(j); 402.13(a); 402.14(b)(1).

The requirement for Service involvement in a no adverse affect judgment helps ensure that the ESA serves its conservation purposes. When it enacted the ESA, Congress gave protection of endangered species priority over the primary missions of all federal agencies. *Tennessee Valley Auth. v. Hill*, 437 U.S. 153, 185 (1978). Congress understood that action agencies might resist that reordering of priorities. It therefore did not leave implementation of the Act to action agencies alone. Instead, it intentionally set up Section 7 to require a dialogue between action agencies and wildlife agencies.

The unhappy experience with the joint counterpart regulations adopted in 2003 allowing action agencies to make no adverse effect decisions for National Fire Plan actions<sup>11</sup> highlight the risks of such self-review. The action agencies in that case, the Bureau of Land Management and the U.S. Forest Service, have substantial experience with section 7 consultation, and were required to implement specific staff training procedures, recordkeeping programs, and standards for making the determination, and knew that their efforts would be reviewed by the Services. These counterpart regulations offered the best possible case for delegating no adverse effect decisions to action agencies. But the Services found in a January 2008 report<sup>12</sup> that BLM and the Forest Service failed to meet basic standards for careful assessment of their actions. NMFS concluded that not one of the 10 evaluations performed for species under its jurisdiction adequately identified the effects of the action, properly noted the listed species that might be affected, or used the best available scientific information. FWS found that 31 of 50 evaluations by the land management agencies did not meet all six review criteria, and 8 of the 50 did not meet any of the criteria.

We agree with the court in *Washington Toxics Coalition v. Dep't of Interior*, 457 F. Supp. 2d 1158, 1179 (W.D. Wash. 2006), that the ESA does not permit action agencies alone “to make the critical section 7(a)(2) determination” that consultation is not required on their own. Even if carefully circumscribed delegation is legally permitted, as a different court concluded in *Defenders of Wildlife v. Kempthorne*, 2006 WL 2844232 (D.D.C.), the National Fire Plan experience shows that it is not a good idea.

## **5) Consultation Must be Required for Decisions Made Under Other Environmental Laws**

The U.S. Environmental Protection Agency (EPA) is charged with protecting the environment under a number of statutes. Many of EPA’s regulatory actions (for example, rulemaking, licensing, and permitting) have the potential to adversely affect listed species and their habitat. While this potential exists for virtually all EPA actions, two regulatory programs stand out as having significant potential to adversely impact listed species: pesticide regulation under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA)<sup>13</sup> and establishing water quality aquatic life criteria under the Clean Water Act (CWA).<sup>14</sup> Each of these programs involves EPA’s approval of direct releases of often highly toxic chemicals into the environment where they frequently come into direct contact with listed species. With regard to each of these

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<sup>11</sup>68 Fed. Reg. 68254 (Dec. 8, 2003), codified at 50 C.F.R. §§ 402.30-402.34.

<sup>12</sup> FISH & WILDLIFE SERV., NAT. MARINE FISHERIES SERV., & BUREAU OF LAND MGMT., USE OF THE ESA SECTION 8 COUNTERPART REGULATIONS FOR PROJECTS THAT SUPPORT THE NATIONAL FIRE PLAN, PROGRAM REVIEW: YEAR ONE 12 (Jan. 11, 2008), available at <http://www.nmfs.noaa.gov/pr/pdfs/laws/fireplanreview.pdf>.

<sup>13</sup> 7 U.S.C. §§ 136-136(y).

<sup>14</sup> 33 U.S.C. §§ 1251-1387.

programs, EPA has a long history of not fully complying with the ESA section 7 consultation process, which not only illustrates the need to retain consultation, but also demonstrates some of the shortcomings of the current system and highlights areas where improvements could be made.

### Pesticide Regulation under FIFRA

Some of our greatest successes in endangered species recovery stem from federal government actions taken to protect endangered species from harmful pesticides. Our nation's symbol, the bald eagle, along with numerous other rapturous birds, once hovered at the brink of extinction due to the use of organochlorine pesticides, such as DDT. EPA's cancellation of the FIFRA registrations for DDT and its relatives is largely responsible for the dramatic recovery of many of these species. Unfortunately, many of the pesticides that remain in current use continue to pose significant risks to threatened and endangered species. A 2004 Report issued by the Center for Biological Diversity concludes that EPA has approved FIFRA registrations for pesticides that put more than 375 threatened and endangered species at risk.<sup>15</sup> Other studies support this conclusion. For example, Dr. David Pimentel estimates that more than 67 million birds are killed by pesticide use in the United States every year.<sup>16</sup>

EPA regulatory actions under FIFRA have the potential to substantially impact the fate of threatened and endangered species. Pesticides, by definition, are "intended to destroy" living organisms.<sup>17</sup> More than 2 billion pounds of pesticides per year are sold for agricultural use in the United States.<sup>18</sup> Moreover, most pesticides in current usage are "broad spectrum" pesticides, able to kill or injure a wide range of non-target organisms, including threatened and endangered species, along with their targeted pest species. Thus, EPA regulatory actions relating to pesticides, perhaps more than any other environmental pollutants, warrant close scrutiny by the Services, the agencies charged with implementation of the ESA and with the expertise necessary to evaluate the consequences of such actions.

Although courts consistently have made clear that EPA regulatory actions under FIFRA are subject to section 7 of the ESA,<sup>19</sup> EPA has repeatedly failed to fulfill its ESA obligations. There has been a long history of EPA non-compliance with the ESA, which only very recently has been reversed as a result of a series of lawsuits compelling section 7 compliance.<sup>20</sup> From

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<sup>15</sup> BRIAN LITMANS & JEFF MILLER, SILENT SPRING REVISITED: PESTICIDE USE AND ENDANGERED SPECIES (A Center for Biological Diversity Report, 2004), available at <http://www.biologicaldiversity.org/swcbd/Programs/science/pesticides/> (Last visited, July 10, 2007) [hereinafter CBD REPORT].

<sup>16</sup> David Pimentel, *et al.*, *Assessment of Environmental and Economic Impacts of Pesticide Use*, in THE PESTICIDE QUESTIONS: ENVIRONMENT, ECONOMICS AND ETHICS 47, 68 (David Pimentel & Hugh Lehman, eds., 1993). See also, American Bird Conservancy, <http://www.abcbirds.org/pesticides/pesticideindex.htm> (last visited August 22, 2007).

<sup>17</sup> 7 U.S.C. § 136(u) provides that the term "pesticide" means "any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest . . ." *Id.* § 136(u).

<sup>18</sup> See CBD REPORT, *supra* note 15.

<sup>19</sup> See *Defenders of Wildlife v. Administrator, Environmental Protection Agency*, 882 F.2d 1294 (8th Cir. 1989), *Wash. Toxics Coalition v. EPA, et al.*, 413 F.3d 1024 (9th Cir. 2005).

<sup>20</sup> See Californians for Alternatives to Toxics website, <http://www.alternatives2toxics.org>; *Wash. Toxics Coalition v. EPA*, Case No. C01-013132C, Order issued January 22, 2004. This Order was the third in a series of orders granting injunctive relief to the environmental plaintiffs in this matter. See *Wash. Toxics Coalition v. EPA*, Case No. C01-013132C, Orders issued July 16, 2003 and August 8, 2003. All of these Orders are available on EPA's

1989 until late 2008, despite making thousands of FIFRA regulatory decisions each year, EPA only completed two formal consultations with the Services, each addressing a number of pesticides with potential impacts on a number of listed species. The Biological Opinions that resulted from these consultations contained a total of 2,054 jeopardy findings (1,867 in the 1989 B.O. and 189 in the 1993 B.O.) and contained more than 200 recommended reasonable and prudent alternatives (RPA's) that EPA could implement to avoid jeopardy. A review of EPA actions taken since these opinions were issued could not identify any action that EPA took to implement any of the reasonable and prudent alternatives. EPA has not only failed to conduct consultations on a most of the regulatory decisions it makes under FIFRA, but in the limited instances where it has consulted, it has failed to implement the recommendations of the expert agencies.<sup>21</sup>

More recently, EPA and the Services have completed two additional formal consultations. However, environmental groups had to sue EPA to force it to initiate the consultations<sup>22</sup> and had to sue NMFS to force it to complete the consultations when more than five years had passed since EPA initiated the consultations and NMFS had not completed them.<sup>23</sup> Approximately seven years after EPA initiated consultation, NMFS finally issued the final B.O.s on the pesticides at issue. Significantly, in the final B.O.s, NMFS made jeopardy findings for a number of pesticides for which EPA had initially made "not likely to adversely affect" determinations. In a November 18, 2008, B.O. regarding three pesticides, diazinon, malathion, and chlorpyrifos, NMFS concluded that the pesticides are likely to jeopardize 27 populations of listed salmon and called for buffer zones next to salmon streams where the chemicals are used. In an April 20, final B.O. on three additional pesticides, carbaryl, carbofuran, and methomyl, NMFS concluded that these pesticides are likely to jeopardize the continued existence of 22 listed Pacific salmonid species and found that the effects of carbaryl and carbofuran are likely to destroy or adversely modify designated habitat for 20 listed salmonids.

These recent examples raise numerous concerns and point to several areas where the consultation process could be improved. First, EPA continues to resist initiating consultation on pesticide decisions unless forced to do so by a lawsuit. Second, NMFS takes many years to complete formal consultation, and in some cases does not complete them until forced to do so by lawsuit. Third, in at least some situations, where EPA finds that a pesticide is "not likely to adversely affect" a listed species, NMFS makes a finding that the same pesticide, not only is likely to adversely affect, but jeopardizes the continued existence of that same species. Finally, EPA and NMFS scientists appear to be using different data and methodologies to make these decisions rather than using their respective expertise, and drawing on the expertise of the broader scientific community and interested public and working cooperatively together to determine the best scientific data and methodologies to achieve the best results. The first concern points to the

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website at <http://www.epa.gov/espp/wtc/index.html>; and <http://www.epa.gov/oppfead1/endorsement/litigation/redleg-frog/rlf.htm>. See also Center for Biological Diversity v. EPA, Case No. 07-2794-JCS (N.D. Cal. 2007), available at <http://www.epa.gov/oppfead/endorsement/litstaus/factsheet.html>.

<sup>21</sup> For a detailed description of EPA's history regarding pesticides and the ESA, see Mary Jane Angelo, *The Killing Fields: Reducing the Casualties in the Battle Between U.S. Endangered Species and Pesticide Law*, 32 HARV. ENVTL. L. REV. 96 (2008).

<sup>22</sup> Wash. Toxics Coalition v. EPA, Case No. C01-013132C, Orders issued July 16, 2003 and August 8, 2003.

<sup>23</sup> See NW Coalition for Alternatives to Pesticides v. NMFS, Case No. 07-1791-RSL (Stipulated Settlement Agreement and Order of Dismissal, 2008).

need to make clear EPA's obligation to consult on pesticide regulatory decisions and to clarify which of its actions are subject to formal consultation. The second concern points to the need to ensure that where consultation is initiated, the Services act in a timely manner using the best information available rather than delaying action until perfect information becomes available. The third concern underscores the need to ensure that EPA obtains the Services concurrence in its decisions of whether an action is likely to adversely affect a listed species. The final concern points to need for a more public and cooperative consultation process.

#### EPA's CWA section 304(a) aquatic life water quality criteria

Section 303 of the CWA directs states to establish water quality standards for the waterbodies within their jurisdictions. State water quality standards must be submitted to and approved by EPA. Section 304(a)(1) of the Clean Water Act directs EPA to develop criteria for water quality that accurately reflects the latest scientific knowledge to provide guidance to states and tribes in adopting their state water quality standards. EPA develops water quality criteria for the protection of aquatic life as well as for human health. The water quality criteria for aquatic life are critical for the protection of listed aquatic species. These criteria are the foundation for determining how much of a particular pollutant can be legally discharged into a particular waterbody. Thus, it is critical that the setting of these criteria be subject to the section 7 consultation process so that the Services can evaluate them to determine whether they are likely to result in jeopardy.

As with the FIFRA regulatory decisions discussed above, EPA has a long history of failing to fully comply with Section 7 of the ESA on aquatic life water quality criteria under the CWA. In 2001, EPA and the Services entered into a Memorandum of Agreement (MOA)<sup>24</sup> intended to enhance coordination of between the agencies on ESA section 7 consultations to facilitate the section 7 process. Since the 2001 MOA, EPA has continued to develop and update its aquatic life water quality criteria and to approve state water quality standards based on such criteria without the completion of any formal consultation on any of these actions. Despite the MOA and the intent to work cooperatively to carry-out necessary consultations in an efficient and effective manner, the agencies appear to have failed to complete a single consultation. As with the failures in the FIFRA program, the failure to complete the aquatic life water quality criteria consultations highlights the need for improvements in coordination and timeliness.

#### Recommendations:

##### *a. The Section 7 consultation requirement must be retained*

The section 7 consultation requirement must be retained for EPA regulatory actions. First, as a purely legal matter, a federal court has specifically ruled that, at least with regard to FIFRA, the Services do not have the authority to adopt regulations that would in essence allow EPA to make its own determinations under ESA section 7. In 2004, the Services issued joint counterpart consultation regulations allowing EPA to determine whether consultation is required for actions implementing FIFRA.<sup>25</sup> A federal district court struck down the FIFRA joint

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<sup>24</sup> 66 Fed. Reg. 11201 (Feb. 22, 2001).

<sup>25</sup> 69 Fed. Reg. 47732 (Aug. 5, 2004) (codified at 50 C.F.R. §§ 402.40-402.48).

counterpart regulations, ruling that the ESA does not permit action agencies alone “to make the critical section 7(a)(2) determination” that consultation is not required.<sup>26</sup> That court also found that the Services had failed to fulfill their own duties to insure that their actions are not likely to jeopardize listed species by delegating decision-making authority to EPA without any evidence that EPA would make those decisions properly.

Moreover, the high risks to listed species posed by pesticides coupled with EPA’s poor track record in both complying with the ESA and taking the necessary steps to protect listed species, make clear that EPA must continue to be required to consult with the Services when making regulatory decisions on pesticides under FIFRA. After decades of not fully complying with the ESA, EPA has finally begun to work with the Services to complete consultations on a number of pesticides that were the subject of lawsuits. It would be disastrous to eliminate or significantly weaken EPA’s consultation obligations at this point.

EPA’s poor track record in complying with the ESA is most likely a reflection of the role that EPA is required to play under FIFRA, rather than some type of intentional plan to circumvent the ESA. Under FIFRA, EPA serves in the role as the licensing agency for commercial products. EPA must make its decisions on whether to register, or continue to register, pesticide products under FIFRA’s cost-benefit balancing standard. The commercial licensing role and cost-benefit standard are not equivalent to role of the Services under section seven of the ESA to provide expert input to prevent jeopardy to listed species. These different roles and standards highlight the purpose of the consultation requirements of section 7. The section 7 process is designed to ensure that expert input on preventing jeopardy to listed species is provided to the federal agencies that are making decisions in a number of different roles under a variety of statutory standards.

Although it is critical to species protection to maintain the existing consultation process for EPA regulatory decisions, some modifications to the process may be worth evaluating.

*b. Timeliness is important, but automatic defaults should not be imposed on the Services*

In addition to recent proposals to allow EPA to in essence consult with itself on pesticide decisions, there have been suggestions to apply tight deadlines to the consultation process. If these tight deadlines are not met, the proposal would allow EPA to proceed with its regulatory decisions without the benefit of the Services input. Because the evaluation of the impact of particular pesticides used in particular manners on particular species and the determination of what reasonable and prudent alternatives could be employed to avoid jeopardy is highly technical and complex, in many cases it may not be possible to complete formal consultations in short periods of time. Imposing unreasonably short time limits on consultations which if not met preclude the Services from having input would be contrary to the purposes of the ESA and could result in jeopardy to listed species. On the other hand, as discussed above, the long delays that often occur can lead to action agencies avoiding consultation or can delay important EPA actions often designed to have an environmental benefit. Clear timeframes for completing consultation are important, but they must be reasonable and the default for failure to meet the

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<sup>26</sup> Washington Toxics Coalition v. Dep’t of Interior, 457 F. Supp. 2d 1158, 1179 (W.D. Wash. 2006).

deadlines should not be a preclusion of Service input.

Historically, the Services have not always “initiated” the formal consultation until many months or even years after the action agency has requested consultation. If the Services do not concur in a “not likely to adversely affect” determination in an informal consultation, they will frequently request additional information from EPA, including information about available data, methodologies used, and other matters, and will not officially “initiate” formal consultation until they are done making requests of EPA staff. Thus, the 90-day statutory time clock for completing formal consultation does not begin ticking until months or even years after the Service has non-concurred in EPA’s effects determination. A way to avoid these long delays is to require the Service to initiate consultation at the time that it issues its non-concurrence. If the agencies were to officially initiate formal consultation at that point and then work together to ensure that the best data and methodologies are used, much of the current delay could be avoided. Of course, flexibility can be built into the process so that if the Services need additional time to gather additional information or conduct additional analyses they can explain the need for the additional time and obtain the concurrence of EPA for an extension of time to complete the process.

One potential way to reduce delays in completing consultations for the more important EPA regulatory decisions would be to clarify the definition of “adversely affect” to make clear which actions must undergo formal consultations. Because of the current lack of clarity, the Services tend to err on the side of making “adverse affect” findings and thus requiring formal consultation rather than focusing their efforts on the agency actions that are most likely to result in jeopardy and or takes. Consequently, the Services are overwhelmed and bogged down in consultations. Agency actions with the potential to seriously harm listed species get lost in the bureaucratic shuffle and some of the most important consultations become stalled in the avalanche of agency actions awaiting consultation.

Other potential mechanisms to consider as ways to avoid lengthy delay include: employing a precautionary approach where the default for failure to meet timeframes is a jeopardy finding and a requirement for the action agency and Services to work together within specified timeframes to develop reasonable and prudent alternatives to avoid jeopardy; and including an explicit provision that would allow interested parties to bring suit to enforce consultation deadlines where the Services fail to comply—currently, interested parties can only bring suit to force the Services to complete a consultation where there is a finding of “unreasonable delay.”

- c. *The consultation process should be improved to create more cooperation between the action agencies and the Services*

At times it appears that EPA and Services are working at cross purposes, with EPA resisting the need to consult on the one hand and the Services, where consultation is sought by EPA, delaying completion of consultation by demanding an unrealistic level of perfect data and scientific certainty such that the agencies become paralyzed into doing nothing. It appears that EPA’s reluctance to consult is, at least in part, a reaction to these the long delays and demands for perfect data, which hinder EPA’s ability to make regulatory decisions. When the Services do complete consultation, the B.O.s often seem to be completed with little input from EPA, the

larger scientific community, or the interested public. Thus, the scientific information and conclusions in the B.O.s often seem to conflict with the scientific information and conclusions put forth by EPA scientists, raising the question of whether the agencies are adequately working together to achieve the best scientific conclusions possible using the best scientific information. For example, as discussed above in the recent pesticide consultations, EPA concluded that the pesticides were not likely to adversely affect listed species. NMFS not only did not concur in the conclusion, but it concluded in its B.O. that those same pesticides are likely to cause jeopardy to the continued existence of the species at issue. This inconsistency between the two agencies' evaluation of the same data, not only underscores the need for the Services to review EPA decisions, but also suggests that the system could be improved to facilitate better cooperation resulting in clearer scientific outcomes.

The lack of full cooperation is also evident in the September 15, 2008 letter<sup>27</sup> that EPA submitted in response to NMFS' July 31, 2008 draft pesticide B.O. In that letter, EPA asserts that this was the first opportunity for EPA to review the approach employed by NMFS, that it was given a short time frame in which to provide comments and that the draft B.O. "lacks a level of transparency necessary to EPA to understand NMFS' rationale for its findings." EPA further contends that the methodology used by NMFS is not transparent and that it is not clear how NMFS determined which available information to use and which available information to exclude from its analysis. Approximately two months after this letter was written, NMFS issued its final B.O., which did not appear to address EPA's concerns. Although it is not entirely clear what transpired between the two agencies for the approximately 7 years it took to complete consultation, the documents in the public record do not suggest that the agencies were working cooperatively together to achieve the best possible outcome.

*d. More opportunity should be provided for the action agencies, scientific community and interested public to have input on draft B.O.s.*

One way to improve the consultation process is to make it more transparent and to provide more opportunity for the scientific community and the interested public to provide input into the process. The ESA directs the Services to use the "best scientific and commercial data available." As described above, EPA and the Services often cannot agree on what data and methodologies should be used. Consultations typically occur behind closed doors and without public input. Draft B.O.s typically are not made available for public review and comment.

To accomplish the goal of using the "best scientific and commercial data available" and to make the best decisions possible to protect listed species, it is imperative that the process be made public. Scientists throughout the U.S. working at Universities and other research institutions may have valuable data, insights and suggestions that could greatly enhance the decisions being made. Thus, information regarding the consultation should be made public early in the process and the public should have an opportunity to submit information and comment on draft B.O.s before the B.O.s are finalized. The Services, in cooperation with EPA, should be directed to establish on-line resources so that the status of consultations can be tracked, draft B.O.s can be found, and comments can be submitted. In addition, the agencies should be

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<sup>27</sup> Letter from Debra Edwards, Director, Office of Pesticide Programs, EPA, to James H. Lecky, Director, Office of Protected Resources, NMFS, September 15, 2008.

directed to develop on-line databases containing up-to-date information relating to the potential impacts of pesticides and other toxic substances on listed species. The scientific community and the public should be provided the opportunity to suggest additional information that should be included in the database.

## **6) Improved Tracking of Section 7 Effort and Outcomes is Needed**

When the Services revised the consultation regulations, under the Bush administration, they cited very little evidence of problems with the consultation process. In part, that appears to have been because they were not genuinely interested in whether problems existed; they simply wanted to undermine the ESA's ability to achieve its conservation goals. But in part it was because there has been little in the way of systematic data collection, much less evaluation or synthesis, in the more than 30 years that section 7 has been in effect.

As part of any review of section 7, we recommend that the Departments: (1) perform an exhaustive literature search for relevant reviews; (2) thoroughly canvass judicial opinions which have overturned agency decisions under section 7; and (3) gather data to the extent feasible on the resources put into consultation by the Services and action agencies, the outcome of consultations (that is, how often they result in changes to proposed actions), and the consequences for listed species. Undoubtedly that review will reveal significant information gaps. In 2004, GAO found that there was so little data available that "federal managers and congressional decision makers cannot have an accurate picture of how long the process takes to complete, how much it costs, and whether resources are adequate to meet workload demands. In addition, the Services cannot confirm or deny complaints about the lengthiness of the entire consultation process or know where the most significant problems arise."<sup>28</sup> Compilation of what data there is, identification of data gaps, careful canvassing of agency experience with the process, and solicitation of input from all stakeholders should be the starting points for reviewing the consultation regulations.

In addition, we recommend that the Services implement effective tracking and monitoring systems, and archive key section 7 documents in searchable electronic format in a centralized database. This spring, GAO reported on the lack of any current system for tracking the collective amount of take permitted through separate biological opinions, or for monitoring compliance with the terms and conditions of biological opinions.<sup>29</sup> With today's technologies, it should not be difficult to implement that sort of tracking. Without it, the Services cannot insure adequate protection of the species under their charge. They cannot properly evaluate the effects of proposed actions if they are not aware of the extent to which earlier-approved actions have already impacted the same species. And they cannot rely on conditions included in biological opinions to protect species if they have no means to ensure that those conditions are actually fulfilled.<sup>30</sup>

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<sup>28</sup> GEN. ACCT. OFF., ENDANGERED SPECIES: MORE FEDERAL MANAGEMENT ATTENTION IS NEEDED TO IMPROVE THE CONSULTATION PROCESS, GAO-04-93, 3 (Mar. 19, 2004).

<sup>29</sup> GEN. ACCT. OFF., ENDANGERED SPECIES ACT: THE U.S. FISH AND WILDLIFE SERVICE HAS INCOMPLETE INFORMATION ABOUT EFFECTS ON LISTED SPECIES FROM SECTION 7 CONSULTATIONS, GAO-09-550 (May 21, 2009).

<sup>30</sup> There is a history of action agencies ignoring essential conditions in biological opinions unless and until environmental groups notice and bring suit. **add cites**

The Services should create a publicly-accessible section 7 database, including biological opinions, monitoring and take reports, and related documents, in common formats and preferably searchable. A public database would leverage the interest of citizens outside the agency, who could help the Services and action agencies fulfill their section 7 obligations. It would also facilitate review by outside scientists of the effects of actions on listed species, increasing the likelihood that we will learn as we go, improving conservation outcomes over time rather than allowing extinction through ignorance.

## **7) Dealing With Global Climate Change**

Probably the most difficult issue the Departments face in reviewing the consultation regulations is how to deal with the impacts of global climate change. A key motivation for the Bush administration's revisions was to remove global warming from the section 7 equation. But that cannot lawfully be done, absent congressional amendment of the ESA. The ESA is "the most comprehensive legislation for the preservation of endangered species ever enacted by any nation,"<sup>31</sup> with the stated goals of conserving species and the ecosystems upon which they depend. It is deliberately framed to protect species against the full range of threats they face, from habitat modification as well as direct exploitation.<sup>32</sup> Climate change, which is already modifying habitats in many ways, is undoubtedly now a leading threat to biodiversity, and may be the single most important threat.<sup>33</sup> Difficult as it is, the Departments therefore must grapple with how to address GHG emissions through ESA consultation.

We do not pretend to have easy answers on this issue. The Services cannot adopt an attitude of willful blindness; to the extent that it is foreseeable that actions with a federal nexus will lead to increased GHG emissions, the Services must do their best to estimate those increases and their effects on listed species. GHG emissions will often follow quite directly from a federal action (such as funding a highway or leasing fossil fuel resources). Action agencies cannot insure that their actions will not jeopardize listed species without considering those effects. In some cases, that will require sophisticated modeling of the relationship between atmospheric GHG levels and localized climatic conditions. The Departments should use this review to identify the information tools they have available, and the additional tools they need. While the Departments may be tempted to try to identify a *de minimis* level of GHG emissions below which actions could be exempted from ESA consultation, we are concerned that the cumulative effects of individually small actions would thereby be missed.

We believe that ESA section 7(a)(1) might help the Services avoid being buried in an

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<sup>31</sup> Tennessee Valley Authority v. Hill, 437 U.S. 153, 180 (1978).

<sup>32</sup> Babbitt v. Sweet Home Chapter of Communities for a Great Oregon, 515 U.S. 687, 699 (1995).

<sup>33</sup> See, e.g., David B. Wake & Vance T. Vredenburg, *Are We in the Midst of the Sixth Mass Extinction? A View from the World of Amphibians*, 105 PROC. NAT'L ACAD. SCI. 11466 (2008); Kent E. Carpenter et al., *One-Third of Reef-Building Corals Face Elevated Extinction Risk from Climate Change and Local Impacts*, 321 SCIENCE 560 (2008); Barry W. Brook, Navjot S. Sodhi, & Corey J. A. Bradshaw, *Synergies Among Extinction Drivers Under Global Change*, 23 TRENDS IN ECOLOGY & EVOLUTION 453 (2008); Cagan H. Sekercioglu et al., *Climate Change, Elevational Range Shifts, and Bird Extinctions*, 22 CONSERVATION BIOLOGY 140 (2008); Walter Jetz, David S. Wilcove, & Andrew P. Dobson, *Projected Impacts of Climate and Land-Use Change on the Global Diversity of Birds*, 5 PLOS BIOLOGY e157 (2007); J. Alan Pounds et al., *Widespread Amphibian Extinctions from Epidemic Disease Driven by Global Warming*, 439 NATURE 161 (2006); Chris D. Thomas et al., *Extinction Risk from Climate Change*, 427 NATURE 145 (2004).

avalanche of difficult small-scale GHG consultations, while at the same time making cumulative effects more visible, and providing an opportunity for large-scale planning and evaluation of trade-offs. Section 7(a)(1) requires that all federal agencies implement programs for the conservation of endangered species. Section 7(a)(1) has historically been underutilized; the Services have never issued regulations setting out the parameters of acceptable conservation programs under section 7(a)(1), nor have they made any attempt to oversee action agency programs. But section 7(a)(1) may be a very good institutional fit for the GHG problem. The Services could direct action agencies to develop GHG plans under section 7(a)(1). GHG plans would identify actions the individual agency takes, funds, and authorizes which increase GHG emissions, and opportunities to reduce or avoid those emissions. Perhaps they could establish a GHG budget for the agency's programs over a period of years. It might be possible to exempt agencies acting within the scope of GHG plans approved under section 7(a)(1) from individual consultation requirements.

### **Conclusion**

Thank you for your attention to these comments.

Sincerely,



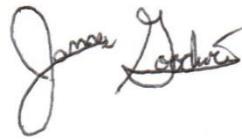
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A handwritten signature in black ink, appearing to read "James Goodwin". The signature is written in a cursive style with a large initial "J" and "G".

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