Chairman Inhofe, Chairman Sullivan, Ranking Member Whitehouse, and Members of the Subcommittee, I am Michael J. Bean, Principal Deputy Assistant Secretary for Fish and Wildlife and Parks at the Department of the Interior (Department). It is my pleasure to testify before you today regarding the U.S. Fish and Wildlife Service’s (Service) mitigation policies and practices. The Service is the oldest Federal conservation agency, tracing its lineage back to 1871, and it is the only agency in the Federal government whose primary responsibility is management of biological resources for the American public. The Service helps ensure a healthy environment for people by protecting species whose decline may signal the degradation of natural resources we need, like water quality, and by providing opportunities for Americans to enjoy the outdoors and our shared natural heritage. The Service is responsible for implementing some of our Nation’s most important and foundational environmental laws, such as the Endangered Species Act (ESA), the Bald and Golden Eagle Protection Act, and the Migratory Bird Treaty Act (MBTA). The Service manages the National Wildlife Refuge System, the world’s premier network of public lands comprised of over 941.6 million acres devoted to the conservation of wildlife and habitat. The Service works in partnership with the states to protect and restore nearly 1,600 animals and plants listed under the ESA and to protect and conserve just over 1,000 species of birds under the MBTA.

The success of fish and wildlife conservation under the Service’s statutory authorities depends in part on the careful planning of development projects that could otherwise negatively impact fish and wildlife species. Recognizing this, the Service has, for decades, sought to facilitate responsible development through the application of mitigation. The term “mitigation” refers to a hierarchical approach to project development that first avoids and then minimizes adverse impacts to protected resources -- for example though project siting and the application of best management practices to project design and operation -- and, finally, applies compensatory offsets where adverse impacts cannot be avoided. Under its 1981 mitigation policy and in partnership with other federal agencies, the states, Tribes, and affected industries, the Service has worked successfully with project proponents on innovative mitigation measures to address a variety of resource challenges, including water supply management, hydropower generation, oil and gas development, solar energy generation, energy distribution, and other industries or land use changes that can result in mortality of protected species or damage to their habitat. Earlier this year, the Service published a proposed revision of its 1981 mitigation policy.
The proposed revised policy creates no new authority; the proposed revisions are based on existing law and are consistent with the Service’s existing, statutory authorities, as well as Federal regulations and policies that direct the Service’s work. It is intended to serve as an over-arching Service guidance applicable to all actions for which the Service has specific authority to recommend or, in limited cases, to require mitigation of impacts to fish, wildlife, plants and their habitats. As proposed, the policy would also serve as a single umbrella policy under which the Service could issue more detailed policies or guidance documents covering specific activities in the future.

The Service also recently published a proposed Endangered Species Act compensatory mitigation policy (CMP). The CMP is a step-down policy that provides clear and consistent measures to address anticipated but unavoidable adverse impacts of proposed actions on threatened or endangered species, species that have been proposed to be so listed, and designated or proposed critical habitats. It updates and replaces the Service’s 2003 Guidance on the Establishment, Use and Operation, of Conservation Banks and the 2008 Recovery Crediting Guidance. Most significantly, the draft CMP moves the Service from project-by-project compensatory mitigation to strategic mitigation planning at the landscape level.

The proposed revisions to the 1981 mitigation policy and proposed CMP are consistent with and fulfill a requirement in the Presidential Memorandum on Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investment (Section 4(c), November 3, 2015), and comply with the Secretary of the Interior’s Order 3330 entitled Improving Mitigation Policies and Practices of the Department of the Interior (October 31, 2015) and the Departmental Manual Chapter (600 DM 6) on Implementing Mitigation at the Landscape-scale (October 23, 2015). They both also fulfill deliverables identified in the Department’s Energy and Climate Change Task Force 2014 report, entitled A Strategy for Improving the Mitigation Policies and Practices of the Department of the Interior, that seeks to implement the guiding principles set forth in the Secretarial Order.

The majority of the Service’s existing authorities for engaging in mitigation processes are advisory, providing the agency the ability to recommend measures that will assist agencies and project proponents avoid, minimize and compensate for impacts to fish and wildlife. The proposed policies being considered today were crafted to improve the Service’s long-standing mitigation efforts by supporting the application of consistent principles and standards throughout its programs and across all of the lands managed by the agency.

**Background: U.S. Fish and Wildlife Service Mitigation Policy and Practice**

The common sense conservative practice of assessing damages to natural resources anticipated by planned human activities, and recommending measures to mitigate anticipated damage, is not new. This practice was mandated by Congress, beginning with the Fish and Wildlife Coordination Act of 1934 (Coordination Act). The Coordination Act included requirements that were the first formal expressions in law of a duty to minimize the negative environmental impacts of major water resource development projects and to compensate for those impacts that remained – giving birth to the core ideas of what we now label as environmental mitigation.
The Coordination Act was a response to an era of big dam building and reflected a concern for the impact of those dams on salmon and other anadromous fish. As originally enacted, it required consultation with the Bureau of Fisheries (as the Service was then known) prior to the construction of any dam to determine if fish ladders or other aids to migration were necessary and economically practical to minimize impacts on fish populations. It also required provision for the opportunity to use the impounded waters for hatcheries to offset impacts that could not otherwise be avoided.

The duties imposed by the Coordination Act were reinforced and expanded by the National Environmental Policy Act of 1969 (NEPA). Under NEPA and its implementing regulations, all federal agencies have a duty to assess the impacts of the major actions they propose to undertake and to consider reasonable alternatives to reduce or eliminate those impacts. The Service, as the federal agency charged by Congress in the Fish and Wildlife Act of 1956 with the responsibility for management, conservation and protection of fish and wildlife resources, routinely recommends mitigation measures to other federal agencies through the NEPA process.

The experience gained in implementing the Coordination Act and NEPA informed the promulgation by the Service of a formal mitigation policy in 1981. The following year, in 1982, Congress gave a significant new mitigation responsibility to the Service when it amended the ESA to authorize permits allowing the taking of endangered species incidental to otherwise lawful activities. Before it may issue such a permit, however, the Service must find that the permit applicant has developed a conservation plan – or HCP - that will minimize and mitigate the impacts of such taking “to the maximum extent practicable.” These habitat conservation planning provisions of Section 10 of the ESA have proven sufficiently flexible to provide the basis for permitting small, single-landowner development projects and broader regional conservation plans encompassing multiple projects undertaken by multiple landowners or project proponents. To date, the Service has approved over a thousand HCPs, allowing project proponents to proceed with their actions in a manner that balances the needs of ESA-listed species with economic development. This has resulted in the conservation of over 5 million acres.

The proposed, revised mitigation policy applies to those resources identified in statute or implementing regulations that provide the Service authority to make mitigation recommendations or specify mitigation requirements. This is inclusive of, but not limited to, the federal trust fish and wildlife resources concept. The Service has traditionally described its trust resources in general terms as migratory birds, federally listed endangered and threatened species, certain marine mammals, and inter-jurisdictional fish. These covered taxa are, in some cases, narrowly defined or specifically identified in statutes.

The types of resources for which the Service is authorized to recommend or require mitigation also include those that contribute broadly to ecological functions that sustain species, and are referenced in several other statutes. The definitions of the terms “wildlife” and “wildlife resources” in the Fish and Wildlife Coordination Act include birds, fishes, mammals, and all other classes of wild animals, and all types of aquatic and land vegetation upon which wildlife depend. Section 404 of the Clean Water Act (33 CFR 320.4) codifies the significance of wetlands and other waters of the United States as important public resources for their habitat value, among other functions. The ESA envisions a broad consideration when describing its purposes as providing a means whereby the ecosystems upon which endangered and threatened species depend may be conserved and when
directing Federal agencies at § 7(a)(1) to utilize their authorities in furtherance of the purposes of the ESA by carrying out programs for the conservation of listed species. The purpose of the National Environmental Policy Act (NEPA) also establishes an expansive focus in promoting efforts that will prevent or eliminate damage to the environment, while stimulating human health and welfare. In NEPA, Congress recognized the profound impact of human activity on the natural environment, particularly through population growth, urbanization, industrial expansion, resource exploitation, and new technologies. NEPA further recognized the critical importance of restoring and maintaining environmental quality, and declared a Federal policy of using all practicable means and measures to create and maintain conditions under which humans and nature can exist in productive harmony. These statutes address systemic concerns and provide authority for protecting habitats and landscapes.

In 1999, the Service published a notice in the Federal Register establishing final policy guidance for compensatory mitigation on National Wildlife Refuges. This policy provides guidance for Service personnel when they are evaluating whether a National Wildlife Refuge should be considered as a site for wetland restoration, enhancement, or creation for compensatory mitigation related to water resource development projects authorized by the Department of The Army under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. In the States of Texas and Louisiana, the Service is allowed to charge, collect, and retain money from parties responsible for damages to National Wildlife Refuges related to the exercise of privately-owned oil and gas rights. These monies can be used to mitigate or restore damaged resources (Pub. L. No. 106-113, 113 Stat. 1535, 1501A-140).

**The Need for Revised Mitigation Policy**

The proposed revisions to existing mitigation policy are motivated by conservation challenges, such as increased changes across our landscapes to serve growing human needs for energy, water and other natural resources and the impacts of climate change. In addition, advances in conservation science since 1981 enable us to more precisely assess and address threats to fish and wildlife, plants and their habitats. The revised policies will modernize our approach and will provide more effective and efficient government to the public.

Since the publication of the Service’s 1981 Policy, land use changes in the United States have reduced the habitats available to fish, wildlife, and plants. For example, the U.S. Department of Agriculture reports that, by 1982, approximately 71 million acres of the lower 48 States had already been developed. In the United States, between 1982 and 2012, an additional 44 million acres were developed, for a total of 114 million acres developed. Of all historic land development in the United States, excluding Alaska, over 37 percent has occurred since 1982. Much of this newly developed land had previously been habitat, including 17 million acres converted from forests. By 2060, a loss of up to 38 million acres (an area the size of Florida) of forest habitats alone is possible. Attendant pressures on remaining habitats are expected to increase fragmentation, isolation, and degradation through myriad indirect effects. Given these projections and their direct and indirect impacts, the

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near-future challenges for conserving species and habitats are daunting. As more lands and waters are developed for human uses, it is incumbent on the Service to help project proponents successfully and strategically mitigate impacts to fish and wildlife and prevent systemic losses of ecological functions that support protected species, or species in need of conservation.

Accelerating climate change poses a significant challenge to conserving species, habitat, and ecosystem functions. Climatic changes can have direct and indirect impacts on species abundance and distribution, and may exacerbate the effects of other stressors, such as habitat fragmentation and diseases.

The conservation of habitats within ecologically functioning landscapes is essential to sustaining fish, wildlife, and plant populations and improving their resilience in the face of climate change impacts, new diseases, invasive species, habitat loss, and other threats. Therefore, the proposed revised policy emphasizes the integration of mitigation planning with a landscape approach to conservation. Advances in science since 1981 have enabled us to make much more precise predictions of impacts to fish and wildlife and their habitats from climate change, development activities, and other factors.

Lastly, a number of changes to the Service’s mitigation-related authorities since 1981, such as Congress’ 1982 amendments to the ESA warrant the revision of existing mitigation policy.

**Proposed Revisions to U.S. Fish and Wildlife Service 1981 Mitigation Policy**

These proposed revisions to the 1981 mitigation policy do not create new authority, rather, they seek to direct our mitigation efforts under existing authority in a more effective and efficient way that benefits from experience gained over decades since the policy was first developed. The proposed revisions would provide a framework for applying a landscape-scale approach to achieve, through application of the mitigation hierarchy, a net gain in conservation outcomes, or at a minimum, no net loss of resources and their values, services, and functions resulting from proposed actions. Like the existing agency policy, they would apply to those resources identified in statute or implementing regulations that provide the Service with authority to make mitigation recommendations or specify mitigation requirements for activities that are directly carried out or funded by Federal agencies, non-Federal actions for which one or more of the Service’s statutory authorities apply, and the Service’s provision of technical assistance to partners.

Specifically, the revisions include clarification of the Service’s use of the elements of mitigation in various contexts. They provide guidance for the application of the hierarchical elements of mitigation in circumstances that indicate a diversion from the order in which they are normally presented. For example, compensation may take precedence before avoidance or minimization of impacts when a species occurs at a location that is not critical to achieving conservation objectives for that species and offsetting habitat improvements can be made offsite, or when current conditions are likely to change substantially due to the effects of a changing climate.

Unlike the 1981 policy, the revised policy would explicitly apply to the conservation of species listed as threatened or endangered under the ESA. Mitigation, as broadly defined in the proposed policy, is an essential contribution to the conservation of threatened and endangered species.
Effective mitigation can contribute to the recovery of listed species or prevent further declines in populations and habitat resources that would otherwise slow or impede recovery of listed species.

The proposed revisions would also provide an updated framework for applying mitigation measures that will maximize their effectiveness at multiple geographic scales, including a landscape scale. In the proposed policy revision, the Service defines “landscape” as an area encompassing an interacting mosaic of ecosystems and human systems that is characterized by common management concerns. The revisions call for mitigation decisions to be informed by knowledge and assumptions about factors influencing the ability of the landscape to sustain species.

The proposed policy revisions are consistent with the Presidential Memorandum and thus will increase consistency in the application of mitigation, both within the Service and across agencies. For example, the proposed revised policy is aligned with relevant regulations, policy, terminology and approaches applied by Federal agencies under the Clean Water Act. Because most projects involve the authorities of more than one agency, having multiple agency mitigation policies using common principles, terms and approaches will provide greater consistency and predictability for the public.

The revised policy proposes that assessments of environmental impacts be made with the best available science and methodologies that will, for example, allow decision makers, action proponents, and the public to compare present and future conditions; use common metrics; and pursue measures that are cost effective and scaled to the relative impacts to affected resources.

The proposed policy revisions support advance mitigation -- mitigation that is developed before actions are proposed -- particularly in areas where multiple, similar actions are expected to adversely affect a similar suite of species. Advance mitigation plans can more effectively address potential indirect and cumulative impacts of development, and incentivize private investments in pre-development compensation activities, such as mitigation and conservation banking.

The proposed 1981 mitigation policy revisions for compensatory mitigation support a level playing field, or equivalent standards, for mechanisms including proponent-responsible mitigation, mitigation/conservation banks, and in-lieu fee programs. The policy increases public transparency by supporting application of measurable performance standards. Aligning mitigation planning with broader, conservation planning is an example of how the policy as a whole is intended to improve the conservation outcomes the Service pursues with its partners.

Finally, the proposed revised policy provides a description of how it relates to existing Federal statutes, regulations and other policies that authorize the Service’s activities across a range of trust species and policy areas, and it introduces the possibility of additional, focused guidance in the future.

**Proposed Compensatory Mitigation Policy**

The first example of a step-down policy under the proposed Service-wide Mitigation Policy is the recently published draft Endangered Species Act – Compensatory Mitigation Policy (CMP), published on September 2, 2016. The proposed CMP is a comprehensive policy that provides
detailed guidance for all compensatory mitigation mechanisms used to compensate for unavoidable adverse impacts to listed species and their habitats including, but not limited to, permittee-responsible mitigation, conservation banking, in-lieu fee programs, habitat credit exchanges and other third party mitigation arrangements that the Service may recommend or require (when necessary and authorized under existing authority) to offset unavoidable adverse impacts to endangered or threatened species (listed species) or other species at risk of being listed as threatened or endangered in the foreseeable future. The proposed CMP would apply to all compensatory mitigation mechanisms that may be proposed by federal agencies or applicants to offset impacts to listed species and/or designated critical habitat, as well as mitigation proposals by mitigation sponsors for conservation banks, in-lieu fee programs and other third party mitigation arrangements.

The proposed CMP aligns the Service’s compensatory mitigation recommendations with landscape-level conservation goals to improve ecological outcomes for the species. It also supports the guiding principle included in the Presidential Memorandum, the Department’s Secretarial Order, and the Service’s proposed revised mitigation policy of ensuring that, at a minimum, an action results in no net loss toward achieving conservation outcomes for affected resources, or a net benefit in conservation outcomes, when that is allowed by applicable statutory authority and consistent with the responsibilities of action proponents.

The draft CMP has a stated preference for compensatory mitigation in advance of unavoidable impacts and encourages consolidating compensatory mitigation on the landscape (e.g., by using conservation banks) when doing so will produce a better ecological outcome for the species.

**U.S. Fish and Wildlife Application of Mitigation**

The Service’s mitigation authorities are largely advisory, providing the ability to recommend mitigation, including under NEPA, the Clean Water Act, Fish and Wildlife Coordination Act and ESA. The Service’s authority to require mitigation is more limited, including the Service’s own actions and those instances clearly established by law, such as section 18 fishway prescriptions under the Federal Power Act, and components of our ESA authority. Working within its statutory authority at all times, the Service has a long history of proactively assisting project proponents in the design and siting of proposed projects, so that they have fewer adverse impacts to public trust fish and wildlife resources. For example, the Service’s voluntary Wind Energy Guidelines, developed by a FACA stakeholder committee, provide a structured, scientific process for addressing wildlife conservation concerns at all stages of land-based wind energy development. They provide developers with resources to evaluate risk and make siting and operational decisions that result in fewer projects planned in high risk areas. They also incorporate best management practices to assist wind energy developers in minimizing impacts to wildlife resources. Avoiding adverse impacts in the first place can reduce the need to take further action to minimize or compensate for such impacts.

Under ESA section 7 the Service has consistently acknowledged and accepted or applied mitigation in the form of: (1) conservation measures voluntarily included as part of a proposed Federal action that avoid, minimize, rectify, reduce, or compensate for unavoidable (also known as residual) impacts to a listed species; (2) components of a reasonable and prudent alternative to avoid
jeopardizing the continued existence of listed species or destroying or adversely modifying designated critical habitat; and (3) reasonable and prudent measures within an incidental take statement to minimize the impacts of taking on the affected listed species. Under section 10(a)(2), a non-Federal applicant is required “to minimize and mitigate” such impacts “to the maximum extent practicable,” among other requirements, to receive an incidental take permit. This policy serves as over-arching Service guidance applicable to all actions for which the Service has specific authority to recommend or require the mitigation of impacts to fish, wildlife, plants, and their habitats, including those covered by the ESA. We intend to adapt Service program-specific policies, handbooks, and guidance documents, consistent with applicable statutes, to integrate the spirit and intent of this policy.

Innovative mitigation approaches are also helping to keep the greater sage-grouse off the list of endangered and threatened species under the ESA, while supporting sustainable economic development across the West. This past September, the Service concluded that the iconic rangeland bird did not warrant protection under ESA, due to the collective efforts by the states, partner agencies, and other stakeholders. The U.S. Forest Service and BLM issued Records of Decision finalizing 98 land use plans to outline a framework for sage-grouse conservation, including required mitigation for certain impacts to greater sage grouse habitat and the commitment to collaboratively develop mitigation strategies with states and partner agencies across the sagebrush landscape. These collaborative strategies will identify and direct mitigation investments to protect and restore sage-grouse habitat in areas of highest ecological value. Two major mining companies, Barrick Gold and Newmont Mining Corporation, at their initiative, have recently entered into innovative mitigation agreements with the Bureau of Land Management and the Fish and Wildlife Service that will further the conservation of the greater sage-grouse. The agreement initiated by the Newmont Mining Corporation includes the State of Nevada.

The Service is committed to working collaboratively and sharing its experience in developing mitigation measures that provide certainty and predictability to project proponents. Under its existing and finalized mitigation policies, the Service will continue its work with partner agencies, including the U.S. Army Corps of Engineers and the Environmental Protection Agency, to create a regulatory environment for project proponents and developers that allows us to build the economy while protecting healthy ecosystems.

**Conclusion**

Advancing safe and responsible development and promoting the conservation of America’s Federal lands and natural and cultural resources for generations to come is a shared responsibility for all of us. The Service is working to ensure mitigation is applied consistently, predictably, and effectively, so that permit applicants and developers can proceed with projects that achieve their need while protecting our Nation’s valuable natural and cultural resources.

Thank you for your interest and for the opportunity to testify today; I am happy to answer any questions.